This study aims at broadening the understanding of small and medium businesses (SMBs) as a significant driver of economic development, as particularly related to their market performance, as well as the impact of the internal and external environment on it. The study was conducted on Croatian fast-growing SMBs, i.e. gazelles. However, the scientific and practical contribution of the research transcends national borders, as there are not many similar studies carried out in transitional or small countries or those in the field of fast-growing businesses. The paper provides a more realistic picture of the variability of environmental factors, as well as of the variability of SMBs performance/effectiveness, as well as includes the period of economic crisis, jeopardising not only the performance, but also the very survival of businesses in general. This study confirmed that eight internal factors (business entity size, life cycle stages, technology and product innovation, organizational autonomy, centralization and formalization, market roles, and type/importance of goals) and three out of the five analyzed external factors (general state of the economy, sector, and type of customers), depending on the period (life cycle stage and general state of the economy), exercise a more or less significant impact on the performance/effectiveness (sales growth and achievement of goals) of SMBs.
1. INTRODUCTION

The fundamental problem that led to this study is still limited empirical knowledge about SMBs in Croatia and worldwide, which makes the development of adapted theories and their successful implementation difficult. The paper addresses two specific problems: market performance of SMBs and the impact of internal and external factors on it. The subject of this dynamic research are the fast-growing SMBs in Croatia, as successful representatives of this important segment of the economy, and the impact of 13 factors (8 internal and 5 external) on their performance/effectiveness, shown through objective indicators of sales growth and subjective evaluation of goals achievement.

1.1. Small and medium businesses - concepts and relevance

SMBs are best determined by the economic and statistical definition in the Bolton Committee Report (1971). While the statistical criteria for quantitative determination of the business entity size (micro, small and medium) vary from country to country, the economic criteria - ownership and managerial independence ((co)owners are also the managers and the small market share of these business entities) - can be considered generally applicable. According to the Small and Medium Entrepreneurship Incentives Act (MINGORP, 2007) SMBs in Croatia are all natural and legal entities independent in permanent undertaking of business activities to gain profit, i.e. income on the market, which meet two of the three (statistical) criteria required. One of the obligatory criteria is the number of employees (up to 250 employees) and the other can include either the annual turnover of up to 216 million HRK or (long-term) assets value of up to 108 million HRK.

Contrary to their name, SMBs play a significant role in the economic and social development of each community. According to data provided by the Ministry of Economy, Labour and Entrepreneurship (MINGORP, 2008), the indicators of SMBs in Croatia do not show large deviations from those for the EU and OECD countries (99.4% of the total number of registered businesses, 64.7% of all employees, 44% of GDP).

Of particular interest to researchers, practitioners and government policies is the category of fast-growing businesses and/or gazelles. The main characteristic of this category is surely fast and above average growth of

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1 This paper is part of a comprehensive research presented in the doctoral dissertation "Modelling effective marketing strategies of SMBs" (Dragnić, 2012).
revenue/sales achieved in a three-year period (the percentages vary from country to country dependent on the national economy growth rate), and closely related increase of employment, while any additional categorization features vary depending on the circumstances and the priorities of national economies. According to the definition recommended by the OECD (2007), fast-growing businesses are those with an average annual growth rate greater than 20% in the three-year period, where growth is measured in terms of revenue and number of employees; businesses entities with less than 10 employees in the start-up period are excluded from this category. The OECD definition distinguishes between the fast-growing business entities and gazelles, where gazelles are young fast-growing entities not operating for more than 5 years.

In Croatia there is no official, accepted definition of fast-growing businesses/gazelles. However, what can be derived from the national incentive and promotional projects of the gazelles carried out by the Ministry of Economy, is that these are the SMBs that have operated for at least three full calendar years, achieved a revenue growth of at least 30%, increased the number of employees and achieved at least 25% of total income from exports in the three-year period observed.²

Fast-growing businesses make up a small share in the total number of business entities, but at the same time, make up a disproportionately significant share in new job, revenue and profit creation and are, therefore, the engine of economic development in general (Birch, 1981). Thus, in the OECD on average the fast-growing businesses make 3-6% (according to the number of employees) and 8-12% (according to the revenue) of total number of business entities. The difference between these two indicators is higher in manufacturing than in the service sector. On average, gazelles account for only 1/5 of fast-growing companies.

According to the Business.hr data³ (2007, 2008), the gazelles (fast-growing businesses), which make up less than 2% of the total number of businesses in Croatia, account for about 12% of the revenue of the entire economy and 9.4% of total number of employees. They also account for around 1/4 of the newly generated revenue/net income and 1/4 of new jobs in the overall Croatian economy. In addition, the income and the employment growth rate of gazelles is

² Definition derived from the description of the beneficiaries of the project "Gazelles" (Incentive Program for Small and Medium Enterprises in Croatia, Ministry of Economy, 2009 and 2010); note: there is no distinction between fast-growing businesses and gazelles.
³ Criteria for "gazelles" categorisation according to Business.hr are set out in the description of the empirical research sample and they are slightly different from those of the Ministry.
significantly higher than the average growth rate of all entrepreneurs (67.7% vs. 24.4%, 30% vs. 9.6%). Unfortunately, all the data stipulated on the fast-growing businesses are related to all businesses, SMBs and large businesses (in the OECD micro business are excluded), thus it is impossible to assess the actual significance of fast-growing SMBs per se.

1.2. Literature review

Besides their importance for the economic and social development, small and medium businesses (SMBs) are the subject of scientific interest also because of their specific business characteristics and behaviour, aiming to adapt economic theory and create applicable models and tools for their better performance (Lesák, 2009; Dragnić, 2009; Grbac and Meier, 2007; Buble and Kružić, 2006; Dana et al., 2005; Leburić and Krneta, 2004; Bygrave, 2003; Timmons, 2003, Gilmore, Carson and Grant, 2001; Hudson, Smart and Bourne, 2001; Carson and Gilmore, 2000; Avlonitis and Gounaris, 1999; Beaver and Ross, 1999; Stokes and Blackburn, 1999; Grubišić, 1999; Appiah-Adu and Singh, 1998; Ghobadian and Gallear, 1997; Dulčić, 1996; Siropolis, 1995; Hills and Narayana, 1989, Robinson and Pearce, 1984; Sexton and VanAuken, 1982).

The common conclusion is that the most important characteristics of SMBs derive primarily from their limitations: a personalized management (owner = manager), constraints in resources (management/organization, human resources, finance), limited market impact, and greater sensitivity to the external environment influences. These characteristics are also held responsible for a particular business conduct. It can be said that the SMBs are more inclined to risk-taking, informal and unstructured way of doing business (shallow and flexible structure, informal and dynamic strategy), pragmatic, spontaneous, and intuitive operation though often reactive. However, this actually creates the potential for flexibility, fast response time/adaptation, and innovation in business.

Even though most studies confirm the expected specific SMBs’ features, others question some of the common beliefs about SMBs’ market approach. It has been confirmed that, due to the aforementioned limitations, SMBs rely on a small number of customers and operate in limited markets - only 8% of SMBs in the EU have reported income from exports. However, the percentages vary from one country to another dependent on the respective national markets size e.g. in Estonia this percentage is 23%, in Slovenia 21%, in Finland 19%, in Denmark 17%. On the other hand, in contrast to the potential for innovation, only slightly less than 1/3 of SMBs offer new or significantly enhanced
products/services, i.e. only 12% of the total income of SMBs in the EU is generated by innovative products and the share is greater in the old than in the new member states, which can be explained by stronger competition and a more demanding and saturated market. Established theories on SMBs’ strategic performance are perhaps the most significantly challenged by those research results that show that SMBs can be as successful outside niches, i.e. they can, in line with their limitations, secure success in the market by means of playing the followers or entering into alliances with the big players” (Lee, Lim and Tan, 1999, Gomes-Casseres, 1997).

To date, studies of fast-growing small businesses have devoted most attention to defining their growth factors. Their effects, however, as well as their specific characteristics and conduct have not yet been clearly determined (Mateev and Anastasov, 2010; Zhang, Yang and Ma, 2008; Henrekson and Johansson, 2008; Swee Lin, 2007; Smyrios and Tan, 2006; Barringer et al., 2005; Jeffcoate, Chappel and Feindt, 2002; Hills and Hultman 1999; Delmar and Davidsson, 1998). Identified factors affecting the rapid growth can be grouped into four categories - entrepreneur’s personality, business strategy, resources and capabilities of the business entity and the external environment.

Success/performance is the resultant of activities of the business entity as a whole (Laitinen, 2000; Porter, 1996; Miller, 1988): its strategy and operational activities, management of all segments of business (human resources, finance, production, marketing), or, as per Kotler (1991) - the business performance in a given period is affected by many factors, including luck! This ought to be remembered when examining the impact of particular variables on the performance. In other words, this is one of the main reasons why such studies sometimes obtain different results in terms of the strength, but also the direction of impact of the same variable (Woodside, Sullivan and Trapey III, 1999).

Most authors measure performance by combining conventional indicators of effectiveness and/or efficiency: most often sales growth/market share increase and profitability (derived indicators of rate of return) and less commonly, liquidity/solvency, employment, reputation/image (Koksal and Ozgul, 2007; Gonzales - Benito, 2005; Brooksbank and Taylor, 2002; Laitinen, 2000; Pelham, 1999, Beaver and Ross, 1999; Grinyer et al., 1990; Covin and Slevin, 1989; Hambrick, 1983).

However, given that a business, i.e. its performance, is considered successful if it meets the set of strategic (inclusive of tactical and operational) goals, it is advisable to harmonize measuring/indicators for performance with
the strategic goals of the specific business entity (Hudson, Smart and Bourne, 2001; Gregory, 1993; Eccles 1991; Kaplan 1983). The subjective assessment of goal achievement of a business entity, which would make this possible through individualization of success, is unjustly neglected in measuring performance (Laitinen, 2000; Bititci, 1994).

The sales growth (and/or market share) is one of those conventional indicators that most directly indicates the ability of a business entity to maintain/reduce/increase the level of their market competitiveness, and at the same time it is considered to be the result and the measure of entrepreneurial orientation (Covin, Green and Slevin, 2006; El-Ansary, 2006; Palmer and Pels, 2004; Davidsson, Delmar and Wiklund, 2002; Timmons, 1998; Lumpkin and Dess, 1996; Alrek and Settle, 1995, Walker and Ruekert, 1987).

Performance measuring is usually carried out by subjective evaluation of the business entities themselves, either by evaluating their satisfaction with the achieved indicators of effectiveness and efficiency (meeting expectations, i.e. plans), or by benchmarking themselves against their competition (Padmore, Taylor and Frecknall-Hughes, 2006; Covin, Green and Slevin, 2006, Tse and Son, 2004; Deshpande and Farley, 1998; Appiah - Adu, 1998; Avlonitis and Gounaris, 1997; Pelham and Wilson, 1996; Greenley, 1995; Slater and Narver 1994, Jaworski and Kohli, 1993; Fiorito and LaForge, 1986; Cooper, 1979). However, despite the strong ties established, i.e. compatibility of subjective evaluation with objective performance indicators (Ward and Lewandowska, 2008; Cano, Carrillas and Jaramillo, 2004, Ellis, 2002; Dawls, 1999; Jaworski and Kohli, 1993; Geringer and Herbert, 1991; Robinson and Pearce, 1988; Venkatraman and Ramanujan, 1986), the inclusion of objective indicators increases the reliability of research results.

Managing the internal environment is usually connected to the degree of performance achievement of a business entity (Albert, 1981; Stegall, Steinmetz and Kline, 1976). However, rare are studies that examine the impact of an internal environment as a whole (combination of all/most of the internal factors) on business strategy and performance (Cyert and March 1992; Daft and Weick 1984).

Entrepreneur's personality (owner's and/or manager's) is a specific internal factor. All studies have shown it has a significant impact on existence and operation of businesses, particularly SMBs (Zhang, Yang and Ma, 2008; Barringer, 2005; Nicholls-Nixon, 2005; Tan and Smyrnios, 2005; Leburić and Krneta, 2004, Mullins, 1996). Specifically, its strong influence on the business
strategic framework has been established (vision, mission, business orientation, culture and goals), which, indirectly and implicitly, affects all the components of the internal environment, strategy and performance. The problem of analysing this factor is reflected in the complexity of deeper analysis (of motives, attitudes, personality traits ...), that would require an expert psychological approach. Therefore, the analysis is usually reduced to demographic characteristics that certainly cannot give a complete and thorough insight into the personality of the entrepreneur.

The business entity size factor, most commonly defined by the number of employees, is encountered in almost every research, most often as a structural sample feature (Foreman, 2008; Ward and Lewandowska, 2008; Covin, Green and Slevin, 2006; Desphande and Farley, 2004; Tse and Sin, 2004; Avlonitis and Gounaris, 1999). Scientifically speaking, this feature and its categorization has its purpose given the specific characteristic which are brought into the business by differences in size – from strength and availability of resources, through organizational structure, to flexibility/ability to adapt.

In the literature the stages in the life cycle are classified in accordance with their features and particularities which condition different actions, i.e. business strategies (Kotler, 2006; Taylor, 1999; Siu and Kirby, 1998; Aaker, 1995; Wasson 1978; Doyle 1976; Ansoff, 1957.). Except for the inception stage, life cycle stage can be also viewed as a state one aspires to achieve, therefore, as a goal and success indicator of a business entity. Although it could and should have been implied, the concept of a life cycle is rarely perceived as a cyclic reoccurrence of life cycle stages throughout the existence of a business entity.

Innovation is often referred to as a fundamental feature of entrepreneurship and growth (GEM’s research; Ridderstrale and Nordstrom, 2004; Mansfield et al., 1971; Schumpeter, 1934). Innovations of products, equipment and processes, and technological development, as a related concept, are certainly an integral part of a business strategy (Dulčić and Bakotić, 2004; Taylor, 1999; Sharfman and Dean, 1997; Damanpour, 1991; West and Farr, 1990; Miles et al., 1978). Furthermore, innovation and technological levels can also be seen as a part of or the result of the condition of resources (material, financial, human, knowledge, competencies, culture/orientation), which determine the

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4 Global Entrepreneurship Monitor – international research project for monitoring entrepreneurial activities implemented since 1999 (Croatia joined in 2002).
5 Resources can be seen as tangible and intangible assets which allow a business entity to effectively and efficiently create its values/market offer, (Hunt and Derozier, 2004; Woodside, Sullivan and Trappey, 1999; Hunt and Morgan, 1996).
development of strategy and business performance (Atuahene-Gima and Murray, 2004; Deshpande and Farley, 2004; Greenley, Hooly and Saunders, 2004; Matsuno, Mentzer and Ozsomer, 2002; Grant, 1996; Milgrom and Roberts, 1990; Drucker, 1985).

The theory and empirical research focus on organizations or organizational features, primarily from the management point of view, or differences between large enterprises and SMBs. Some of them explore the relationship between business orientation (strategies), organizational features (structure) and performance (Covin, Green and Slevin, 2006; Avlonitis and Gounaris, 1999; Dulčić 1993; Fiegenbaum and Karnan, 1991; Covin and Slevin 1989; Shapiro, 1988; MacMillan, McCaffery and VanWijk 1982; Miles and Snow, 1978). Organizational features affect the process of strategy defining/implementation and content, business culture (they are part of it) and they reflect the personality of the entrepreneur/owner and manager. The most often analysed features of a business entity are autonomy (Wennekers et al., 2007; White, 1986), centralization (Foreman, 2008; Covin, Green and Slevin, 2006; Buble and Kružić, 2006; Kirk, Jayachandran, and Bearden, 2005; Atuahene-Gima and Murray, 2004; Matsuno, Mentzer and Ozsomer 2002; Sikavica, Novak, 1998; Pelham and Wilson, 1996; Deshpande and Zaltman, 1982; Mintzberg, 1973) and formalization (Foreman, 2008; Kirk, Jayachandran, and Bearden, 2005; Moncrieff, 1999; Moorman, 1995; Menon and Varadarajan, 1993; Day, 1991; John and Martin, 1984; Hall, Haas and Johnson, 1967).

The market role of a business entity (Tse and Son, 2004; Ishaq, 2002; Kotler 1992; Dolan, 1981) can be observed as entity’s current position/state which determines the choice of the strategy, but also as its set target/result. Market roles result from the strength of businesses on the market (share size and competitiveness position), and are characterized by the level of innovation and business pro-activeness necessary to achieve and maintain a certain position. Accordingly, in the established division of market roles (Kotler and Keller, 2008; Porter, 1980) two drawbacks can be identified: the role of nicher is defined by the criterion of where/in what market segment certain business operates, and not by its position in relation to its competition; a lack of the monopolist role for situations when an entity is the only one on the market/market segment.

To date, researches mainly observe goals as a dependent variable, measuring strategies and other elements’ impact on conventional performance indicators, as controlling indicators of common business goals. However, if the choice of strategy is the function of the environmental requirements and types
of objectives that a business entity wants to achieve (Hambrick, 1983), the initial role of goals as an independent variable that affects the strategy and performance is then unquestionable. Specifically, the goals largely reflect and result from motivation and entrepreneur's value system, SMB’s vision, mission, business culture and orientation. Therefore, businesses can differ in the importance they give to different goals from different business areas.

The feasibility and efficiency of a business strategy derives from optimal use of internal strengths and external opportunities as well as from reduction of internal weaknesses and external threats. That is, the strategy can be viewed as a mechanism of adjustment, the method of aligning business/internal environment with the external environment while the interaction between the internal and external environment/factors is crucial for the success of a business entity (Kotler and Keller, 2008; Buble et al., 2005; Pelham, 1999; Walker and Ruekert, 1987; Hitt and Ireland, 1985; Hambrick, 1983; Porter, 1980; Andrews, 1971). Hence a distinct position of strategy as the dependent variable in relation to internal and external environment factors on one hand, and the independent variable that (in a possible correlation with environmental factors) affects the performance of a business entity on the other.

Since the external environment primarily affects the survival and the growth of business entities (Covin and Slevin, 1989), researches deal with the issue of efficiency of certain business orientations/strategies in a particular environment, i.e. how the external environment affects the strategy and performance of businesses (Ward and Lewandowska, 2008; Ellis, 2006; Morgan and Hunt, 2002; Pelham, 1999; Avlonitis and Gounaris, 1999; Siu and Kirby, 1998; Sebora et al., 1994; Slater and Narver, 1994; Diamantopoulos and Hart 1993; Day, 1990; Porter, 1985; Hambrick, 1983; Kotler, 1977; Levitt, 1960). While the theory usually approaches the analysis of the external environment through the analysis of the macro environment (PESTE\(^6\)) and micro environment (suppliers, competitors, intermediaries and customers), empirical studies most often create constructs that are a combination of the aforementioned categories. However, as it was the case with internal environment, very few studies examine the external environment impact as a whole (a combination of all/most of the external factors) on strategy and performance.

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\(^6\) Analysis of political, economic, social, technological and geo-climatic factors; other variations/acronyms are also used depending on the factors included and their order.
Under the construct of the **general state of the economy** the following are analysed: dynamics, intensity and impact of the general economic and fiscal factors, legislation, social and business culture, general prosperity (Ward and Lewandowska, 2008; Ellis, 2006; Ang, 2001; Mavondo, 1999; Deshpande, Farley and Webster, 1993; Chilton, 1984). Previous studies have identified and analysed the general state of the economy in terms of the continuity of economic-political orientation and the dynamics of macroeconomic indicators (Foreman, 2008; Dwyer et al., 2007; Palmer and Pels, 2004; Desphande and Farley, 2004; Singh, 2003; Grbac and Martin, 2001; Hooley et al., 2000; Appiah-Adu, 1998; Slater and Narver, 1994); in terms of the direction of macroeconomic indicators (Gonzales-Benito and Munoz-Gallego, 2009; Koksal and Ozgul, 2007; Laitinen, 2000; Beaver and Ross, 1999; Shama, 1992; Kim and Lim, 1988; Miller and Toulouse, 1986); and in terms of ease and security of doing business (Foreman, 2008; Palmer and Pels, 2004; Homberg and Pflesser, 2000; Pelham and Wilson, 1996; Diamantopoulos and Hart, 1993; Covin and Slevin, 1989; Porter, 1985; Scherer, 1980).

Similar to **business size** factor, the **sector** variable is present in almost all the studies, at least as a structural characteristic of a sample. As an independent variable of impact on business orientations/strategies and business performance, sector is addressed in the specific sectoral (Deshpande and Farley, 2004; Laitinen, 2000; Pelham, 1999; Montgomery and Porter, 1991; Kohli and Jaworski, 1990; Covin and Slevin, 1989; Narver and Slater, 1989; Sandberg, Keats and Hitt, 1988; Miller and Toulouse, 1986; Porter, 1985; Dess and Beard, 1984; Hambrick, 1983) and multi-sectoral research (Ward and Lewandowska, 2008; Foreman 2008; Ozgul and Koksal, 2007; Cano, Carrillat and Jaramillo, 2004; Broocksbank and Taylor, 2002; Avlonitis and Gounaris, 1999). The influence of this variable can be observed in terms of its dynamics, and though it is rather feasible in the specific sectoral studies, it is hampered in the multi-sectoral research by numerous limitations. Accordingly, the impact of this variable primarily results from the principal differences/specific characteristics\(^7\) of the defined categories of sectors, most often manufacturing, services and trade.

**Market type/size** and **customer type/size** are often found in empirical research as structural characteristics of the sample, but they should primarily be regarded as an independent variable of the external environment. Namely, with their specific features different types and sizes of markets and customers

\(^7\) Recognized specific characteristics are significant to the extent that a special field of services marketing has been developed in the marketing theory, and within the field, marketing in tourism, banking, trade, etc.
influence the selection of target markets/segments (marketing strategy) and the performance of a business entity.

The most common categorization of market types, in theory, research and practice, is reduced to local - regional, national and international market (Miočević and Crnjak-Karanović, 2009; Ward and Lewandowska, 2008; Ozgul and Koksal, 2007; Sabol, 2007; Ellis, 2006; Ruzzier, Hisrich and Antoncic, 2006; Palmer and Pels, 2004; Mtigwe, 2004). The fundamental features and differences\(^8\) between categories of this construct are derived from the possible implications on the marketing strategy and performance conditioned by the complexity of market type - size, proximity/accessibility, familiarity and homogeneity.

The most common customer types are the individual/consumers (B2C) and business customers (B2B), within which there is a further division (Dragnić, 2009; Ward and Lewandowska, 2008; Kotler, 2006; Hawkins, Best and Coney, 2004; Deshpande and Farley, 2003; Mavondo and Farrell, 2000). The fundamental features and differences\(^9\) between categories of this construct are derived from the possible implications on the marketing strategy and performance conditioned by the complexity of customer type - market/demand, decision-making and purchasing process structure.

2. RESEARCH OBJECTIVES AND METHODOLOGY

2.1. Objectives and the contribution

The main goal and the contribution of this research is derived from the insufficient knowledge about SMBs, compared to what we know about large enterprises, and the discrepancy between the findings about SMBs in the developed/traditional market economies/big countries and those in developing/transitional economies/small countries. By increasing the quantity and quality of knowledge about SMBs, preconditions are created for increasing the level of adapting the existing theory and the usefulness of scientific knowledge for developing a successful SMB practice, which is indeed the ultimate goal and purpose of this research.

\(^8\) In the theory of marketing a special field of international and global marketing has been developed.

\(^9\) In the theory of marketing special fields of business to business (B2B) marketing and non-profit organisations marketing have been developed.
The specific goals and contributions of the research include the following:

- increasing awareness of the fast-growing SMBs, as a successful and propulsive part of the economy;
- analysing the impact of a comprehensive combination of factors in order to thoroughly and accurately define the impact of internal and external environment on the performance;
- measuring performance/effectiveness by a combination of conventional indicator and goals achievement, and a combination of subjective assessment and objective data, which increases the reliability of the results;
- dynamic dimension - analysis of business performance and the impact of environmental factors over a longer period of time, i.e. from 1990s to 2010, including the period of crisis, which provides more complete and more realistic results.

2.2. Methodology and research instruments

The research is of a dynamic and multisectoral structure and was conducted on the target sample based on the longitudinal study of gazelles conducted by Business.hr and Financial Agency - FINA. The defined independent and dependent variables are examined and analysed in the period from 1990s to the year 2010, largely based on primary data, collected by means of surveying. The research also encompasses some secondary data from the official sources: FINA, the Croatian Central Bureau of Statistics, the National Bank, the Croatian Chamber of Economy, the National Council for Competitiveness, GEM and others.

Primary data were collected using the structured questionnaire, designed for key person (one source), in this case the entrepreneur (owner and/or manager), which is, considering their role, the most common practice in the study of SMBs (Foreman, 2008; Ward and Lewandowska, 2008; Cano, Carrillas, Jaramillo, 2004, Ellis, 2002).

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10 The Gazelles project started in 2006, in order to identify and rank fast-growing businesses in Croatia. Four published lists of gazelles (2006, 2007, 2008, and 2009; covering period from 2003 to 2008) have been used as starting database for defining the sample of this survey.

11 The exact year depends on the initial period of each SMB; for a more detailed explanation see section 3.2 (variable general state of the economy).

12 Since the survey was conducted for the purpose of the doctoral dissertation, the original questionnaire contains also the questions that are not relevant for the subject of this paper and are not discussed here.
Having analysed a number of existing questionnaires used in similar studies (Koksal and Ozgul, 2007; Covin, Green and Slevin, 2006; Simpson et al., 2006; Desphande and Farley, 2004; Brooksbank and Taylor, 2002; Ang, 2001; Matsuno and Mentzer, 2000; Avlonitis and Gounaris, 1999; Pelham and Wilson, 1996) a completely new questionnaire was constructed as a new methodological tool adapted, among other things, to measuring the internal and external factors and their impact on the effectiveness of SMBs, taking into account the guidelines provided in the questionnaire testing phase both by experts (in the field of marketing, psychology and statistics) and by entrepreneurs themselves.

The first part of the questionnaire (questions from 1 to 5) addresses the sector in which SMBs predominantly operate, the year in which the business was set up or privatized/restructured, ownership structure, operation, and business growth. For these questions categorized responses are offered (except for the open question about the start/change of operations).

The following question (in tabular form) determines the dynamics of achieving business results by means of categorization of growth/decline rate: sales (revenues), the number of employees and the financial results in the period from 2006 to 2010, in order to supplement the secondary data obtained from the Business.hr and FINA databases. At the same time this approach assured the reliability of responses check, allowing for at least a partial comparison of subjective and objective data.

The reminder of the questionnaire is structured in such a way that the same questions (33 questions + 3 sub-questions) examine the elements of the variables in the following periods: initial business stage, stage of rapid growth (gazelles), post gazelles operations stage and a period of economic crisis (2009/2010). The questions are formulated in the following way: four questions require a score on the scale 1 to 5 to be given to a specific element, while 32 questions offer a set of categorized answers - 18 questions require one answer and 14 allow the selection of more than one.

The collected data were further verified in order to remove the measurement error. After encoding and pre-processing in MS Excel program, a statistical analysis in SPSS\(^13\) 17.0 was carried out. Quantitative and qualitative methods were used, univariate and multivariate analyses, descriptive statistics, regression and the relevant tests of variables' significance. Because of the

\(^{13}\)Statistical Package for Social Science is IBM Corporation software package (the authors are Norman H. Nie and C. Hadlai Hull).
specific needs of the research, the PHStat2 program was also used (Z-test for small samples, scattered frequencies).

2.3. Defining the research sample

The research was conducted on a target sample of Croatian SMBs - fast-growing entities *gazelles*, i.e. on the sample of effective SMBs. This ensured a greater homogeneity of the sample, i.e. prevented additional frequency dispersion, which increased the likelihood of obtaining statistically significant research results and deriving substantiated conclusions. The applied combination of judgment and quota sampling method is considered to be the closest to random sampling (Parasuraman, Grewal and Krishnan, 2007).

The target sample of fast-growing SMBs is defined based on the database Business.hr, which, in cooperation with FINA, has been implementing the *Gazelles* project since 2006 in line with business entities’ features as it follows:

- above-average sales growth during the three-year period - at least 20% for the period between 2003 and 2005 and 30% for three-year periods between 2004 and 2008,
- profits throughout the three-year period,
- 6 employees at minimum and not exceeding 1,000 at the end of the three-year period,
- annual income of at least 6 million HRK, but not exceeding 500 million HRK at the end of the three-year period,
- market orientation – the utility companies and institutions, as well as financial institutions are excluded from the sample, due to different reporting obligations,
- legality of business operations, i.e. the company and/or its management must not be under investigation or be sentenced for criminal offences in business operations.

The *Gazelles* project database provided a dynamic overview of the fast-growing businesses in three-year intervals in the period from 2003 to 2008. The analysis of the total population of the fast-growing entities from the Business.hr database identified some deficiencies that were largely eliminated when creating the research database. Consequently, the following were excluded from the database: large and state-owned enterprises and legal entities not relevant for the study; business entities with a growth of less than 30% (given that the selection criterion was the sales growth of 20% or more for the period 2003-2005); recurring business entities (those that realized a rapid growth for more
than three years and kept appearing on two and more lists). This way, the actual, i.e. the net total population of 3,875 fast-growing SMBs in Croatia was established for the period from 2003 to 2008.

The target sample size was determined to include 1/3 of the net population of SMBs’ gazelles (1,386 business entities). The sample included all the fast-growing entities from the consolidated 2006 list (947) to enable the research of such respondents who had the longest period of business operations, thus more life cycle stages and who were in different general states of the economy. This also allowed a significant representation of recurring gazelles that achieved fast growth in the period longer than three years, thus improving the quality of the sample of successful SMBs. The remaining sample of gazelles was selected from consolidated lists for the years 2007 (128), 2008 (155) and 2009 (156), i.e. 15% of gazelles per list were extracted by means of sector and region quota sampling. This ensured that specific features of SMBs who had just and/or only in these specific periods had achieved above-average growth were incorporated in the research. This brought an added value to the representativeness and reliability of both the sample and the research as a whole. In the final stage of preparation for surveying, the sample size was reduced to 1,118 due to problems with identifying contact e-mail addresses and/or the inactive status of some businesses entities (deleted/bankrupt/under investigation).

The structured questionnaire accompanied by the cover letter to the entrepreneur, i.e. owner and/or manager, was emailed to the sample list of respondents during November, 2010 and January, 2011. A total of 126 questionnaires were collected (11% return rate), out of which 12 were incomplete/unusable, which reduced the final sample size to 114 respondents representing the net rate of return of 10%. By applying the criteria of sector and region (Tables 1 and 2), analysis and comparison of the sample structure and the gazelles population showed a deviation of less than 10% (average deviation by sector of 2.36%, and 6.74% by region), based on which it could be concluded that the sample is representative (Tabachnick and Fidell, 2001). Given the purpose and the subject matter of the research, the quality of the sample is further increased by the significant share of recurring gazelles (76%) and the average sales growth rate in the three-year periods (from 78% to 108%, dependent on the period) that are larger than the average rate in the population. This means that, according to the primary criterion of effectiveness – the above-

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14 The structure of the sample in terms of sector does not include 22 business entities (19% of the sample). These are assigned to a special category of combined sectors. Namely, in the course of data processing it was noticed and recognised, as potentially interesting finding to explore, that there were businesses that operated in different most commonly vertically related sectors: production and trade, services and trade, and combinations of sectors without trade.
average sales growth rate - the sample unquestionably represents successful SMBs.

Table 1. Sample structure and deviation in terms of sector

<table>
<thead>
<tr>
<th>SECTOR</th>
<th>Sample</th>
<th>Population</th>
<th>Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>%</td>
<td>Expected number</td>
</tr>
<tr>
<td>Agriculture, fisheries and mining</td>
<td>3</td>
<td>3.3</td>
<td>4.0</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>20</td>
<td>21.7</td>
<td>18.0</td>
</tr>
<tr>
<td>Construction industry</td>
<td>16</td>
<td>17.4</td>
<td>18.0</td>
</tr>
<tr>
<td>Tourism and hospitality</td>
<td>4</td>
<td>4.3</td>
<td>2.0</td>
</tr>
<tr>
<td>Trade</td>
<td>26</td>
<td>28.3</td>
<td>34.0</td>
</tr>
<tr>
<td>Other</td>
<td>23</td>
<td>25.0</td>
<td>24.0</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>92</strong></td>
<td><strong>100</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

On average 2.36%

Given the purpose and the subject matter of research, the sample quality is further increased by the significant share of recurring gazelles (76%) and the average sales growth rate in the three-year periods (from 78% to 108%, dependent on the period) that are larger than the average rate in the population.

Table 2. Structure and deviation of the sample in terms of region

<table>
<thead>
<tr>
<th>REGION</th>
<th>Sample</th>
<th>Population</th>
<th>Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>%</td>
<td>Expected number</td>
</tr>
<tr>
<td>North-western Croatia</td>
<td>9</td>
<td>7.9</td>
<td>10.8</td>
</tr>
<tr>
<td>Central Croatia</td>
<td>11</td>
<td>9.6</td>
<td>13.8</td>
</tr>
<tr>
<td>Eastern Croatia (Slavonia)</td>
<td>10</td>
<td>8.8</td>
<td>11.2</td>
</tr>
<tr>
<td>The city of Zagreb</td>
<td>30</td>
<td>26.3</td>
<td>37.1</td>
</tr>
<tr>
<td>Istra, Primorje and Lika</td>
<td>19</td>
<td>16.7</td>
<td>11.7</td>
</tr>
<tr>
<td>Southern Croatia (Dalmatia)</td>
<td>35</td>
<td>30.7</td>
<td>15.5</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>114</strong></td>
<td><strong>100</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

On average 6.74%
According to the primary criterion of effectiveness – the above-average sales growth rate - the sample unquestionably represents successful SMBs.

3. RESEARCH RESULTS AND DISCUSSION

The dependent variable of performance/effectiveness is defined by a combination of primary (subjective rating and objective data) and secondary/objective data.

In line with the theoretical elaboration provided, two sub-variables are defined for each period and life cycle stage:
- \textit{goals achievement} - measured based on the subjective measurement scale (1 - very little, 2 - partial, 3 - mostly, 4 - completely, 5 - more than planned/desired);
- \textit{sales growth}^{15} (annual rate) - measured based on the objective data from the secondary sources and questionnaire: 1 - fall \(>10\%\), 2 - fall \(<10\%\), 3 - same level, the growth of \(0\%\), 4 - growth \(<10\%\), 5 - growth \(>10\%).

The average annual sales growth (\textit{Table 3}) in the \textit{gazelles} period shows the expected growth rate of \(>10\%\).

\textit{Table 3. Performance – sales growth and goals achievement}

<table>
<thead>
<tr>
<th>PERFORMANCE/EFFECTIVENESS BY PERIOD</th>
<th>Sales growth (mean)</th>
<th>Goals achievement (mean)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial period</td>
<td>–</td>
<td>3.79</td>
</tr>
<tr>
<td>\textit{Gazelles} period</td>
<td>4.94</td>
<td>4.00</td>
</tr>
<tr>
<td>Post \textit{gazelles} period</td>
<td>3.32</td>
<td>3.18</td>
</tr>
<tr>
<td>Period of crisis</td>
<td>2.72</td>
<td>2.73</td>
</tr>
</tbody>
</table>

\(^{15}\) Although the intention had been to introduce net growth/decline rate in sales, i.e. reduce the realized growth/decline rate of an individual business by the average sectoral rate in order to obtain as objective indicator of its business performance as possible, the net rate was not introduced due to numerous restrictions.
However, the fact that even in the period of rapid/above-average growth the average rate is not 5.0 indicates that SMBs do not achieve steady growth.

The average annual sales growth rate in the post *gazelles* period, although slightly higher, falls in the growth category of 0%. The average annual sales growth rate in the period of crisis falls in the same growth category, but with a slightly lower average.

In the initial and the *gazelles* period, the average grade of goals achievement belongs to the category of *completely*, whereas the average grade of goals achievement in the post *gazelles* period falls in the category of *mostly*, which is also the category of the goals achievement in the crisis period, although the average grade is lower in this case.

Although two different indicators of effectiveness are considered, the consistency of trend/rank of effectiveness for different periods for both indicators confirms the reliability of both indicators and removes any possible doubt regarding the use of subjective ratings as valid data for the analysis and reaching a conclusion.

Although the results presented in Table 3 seem to be relatively homogeneous, only a weak correlation between performance indicators through the periods was determined ($\alpha < 0.5$, with a significance of $\alpha < 1\%$ to $\alpha < 5\%$).

Analysis (T-test) of both indicators of effectiveness show a statistically significant difference in sales growth and achievement of goals between periods, with the significance of $\alpha < 1\%$ except for the difference in the goal achievement in the initial and in the *gazelles* period, where the significance was $\alpha = 2.3\%, < 5\%$.

The analysis of the impact of independent internal and external environment variables on the effectiveness of the fast-growing SMBs (*Table 4*) determined a statistically significant impact of 11, out of 13 analysed environmental factors.
Table 4. An overview of statistically significant impacts of independent variables on performance

<table>
<thead>
<tr>
<th>Performance/Efficiency</th>
<th>Sales growth</th>
<th>Goals achievement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business entity size</td>
<td>$\alpha &lt; 10%$ (period of crisis)</td>
<td>-</td>
</tr>
<tr>
<td>Life cycle stage</td>
<td>$\alpha &lt; 1%$ (period of crisis)</td>
<td>$\alpha &lt; 5%$ and $\alpha &lt; 1%$ (initial period and period of crisis)</td>
</tr>
<tr>
<td>Innovation – technologies</td>
<td>$\alpha &lt; 10%$ (period of crisis)</td>
<td>$\alpha &lt; 5%$ (period of crisis)</td>
</tr>
<tr>
<td>Innovation – products</td>
<td>-</td>
<td>$\alpha &lt; 10%$ (initial period and period of crisis)</td>
</tr>
<tr>
<td>Organisational feature – autonomy</td>
<td>$\alpha &lt; 5%$ (period of crisis)</td>
<td>$\alpha &lt; 5%$ (period of crisis)</td>
</tr>
<tr>
<td>Organisational feature – centralisation &amp; formalisation</td>
<td>$\alpha &lt; 5%$ (period of crisis)</td>
<td>$\alpha &lt; 1%$ (period of crisis)</td>
</tr>
<tr>
<td>Market role</td>
<td>-</td>
<td>$\alpha &lt; 10%$ (period of crisis)</td>
</tr>
<tr>
<td>Types/importance of the goals</td>
<td>$\alpha &lt; 5%$ (all periods)</td>
<td>$\alpha &lt; 5%$ and $\alpha &lt; 10%$ (gazelles period and period of crisis)</td>
</tr>
<tr>
<td>General state of the economy</td>
<td>$\alpha &lt; 1%$ (period of crisis)</td>
<td>$\alpha &lt; 5%$ (period of crisis)</td>
</tr>
<tr>
<td>Sector</td>
<td>-</td>
<td>$\alpha &lt; 10%$ (period of crisis)</td>
</tr>
<tr>
<td>Type/size of the market</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Customers – type</td>
<td>$\alpha &lt; 10%$ (period of crisis)</td>
<td>$\alpha &lt; 5%$ (gazelles period and period of crisis)</td>
</tr>
<tr>
<td>Customers – size</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

3.1. Measuring the independent variables of the internal environment and their impact

Independent variable `business entity size` is determined by the number of employees. To identify and define this variable, the secondary data from the Business.hr database (source: FINA) were used which were supplemented by public data (Internet) and primary data about the employee turnover from the...
questionnaire. Given the dynamic nature of the research, it was estimated desirable to apply it on this variable as well, so it would show the employee turnover from the beginning to the end of the observed period. To avoid too large a measuring scale, i.e. the frequency dispersion, the following scale was developed:

- 1 - micro – a grade defining the group of those who either remain in the micro group or are crossing into the category of small (up to 19 employees); this grade represents 22% of the sample;
- 2 - small – the group of those crossing from micro or remaining in the category of small (20 - 49); this grade represents 41% of the sample;
- 3 - medium – the group of those crossing from small or remaining in the medium category (50 - 249); this grade represents 37% of the sample.

Analysis of variance (F tests - ANOVA) did not establish any significant impact of size on the performance/efficiency of SMBs, with an exception in the period of crisis when it could influence the sales growth indicators, but only on the sample of the successful entities with a significance of $\alpha = 5.9\%$ (< 10 %). In other words, the analysis shows that, if the SMB performs well in the period of crisis, the bigger it is the more successful it is, i.e. it achieves better sales growth results (average effectiveness ranges from 3.23 for micro-small, 3.80 for small, and up to 4.08 for medium entities).

The variable life cycle stage of a business entity is defined in accordance with the concept of life cycle as a continuous, cyclical repetition of different stages in business. Having taken into account the duration of the observed period (from the 1990s to 2010), the measurement scale was defined in the following way:

- 1 - introductory stage - in case the business was established in the observed period (64.91% of the sample, in the initial period), 5 - revival/turnaround stage – in case of starting the business after privatization, spin-off or significant reorganisation of previous operations (35.09% of the sample, in the initial stage);
- 2 - growth phases - follows stage 1, encompasses the gazelle period and the period following the gazelles, provided that sales growth indicates growth of $>10\%$, and at least one additional of the remaining performance indicators (the number of employees and/or financial results) also shows growth (64.91% of the sample, in the gazelle period); 6 - growth stage - follows stage 5, including the gazelle period and also the period following it under the above explained conditions.
D. Dragnić: Impact of internal and external factors on the performance of fast-growing small...

(35.09% of the sample, in the gazelles period); (the share of entities in stages 2 and 6, in the post gazelles period is 17.74%, and 12.28% during the crisis);

- 3 - maturity stage - follows stage 2, depending on whether it is about the beginning, mid-term or the end of the stage, sales may range from the slow growth (< 10%), over the same level to slightly declining (< 10%); the number of employees from (continuing) growth over the same level to a fall; financial results can range from growth over the same level to the fall of profit (37.1% of entities in the post gazelles period, 21.93% in the period of crisis); 7 - maturity stage - follows stage 6, under the above explained conditions (22.58% of entities in the post gazelles period, 16.67% in the period of crisis);

- 4 - decline stage - follows either stage 2 or 3, provided that at least two of three performance indicators (sales is obligatory) record a decrease (30.7% of subjects in the period of crisis); 8 - decline stage- following either stage 6 or 7, under the above explained conditions (21.93% of entities in the period of crisis); (proportion of entities in phases 4 and 8, in the post gazelles period is 22.58%);

- 5 - revival/turnaround stage – follows either stage 3 or 4, provided that there was a positive turnaround compared to the previous stage; 9 - revival/turnaround stage -follows either phase 7 or 8, under the above explained conditions (proportion of entities in stages 5 and 9 in the period of crisis is 6.14%).

It is evident from the way the life cycle stages are identified and measured, that the anticipated sub-cycles differ primarily in the initial stage, which enables the connection of corresponding pairs (1, 5, and 9; 2 and 6; 3 and 7; 4 and 8) for the purpose of analysis without significant loss of characteristics and differences between the life cycle stages. It should be noted that, even though length and the shape of the life cycle indicate the business efficacy, and the transition from one stage to another or remaining at a certain stage can be viewed as a strategic goal/result of a business entity, in this research life cycle stage is treated as an independent variable, i.e. as an operating condition of a business entity.

Analysis of variance (F tests - ANOVA) has found, except for the gazelles period, that there is a significant impact of life cycle stages on the performance/effectiveness of SMBs – with the significance of α = 3.9% for the goals achievement in the initial period, α < 1% for sales growth in the post gazelles period, and α < 1% for sales growth and the goals achievement in the period of crisis. The results indicate the following:
In the initial period, the level of goals achievement is higher in the introductory stage (1) than in the turnaround stage (5), which can be interpreted with lower expectations at the early stages of business, or higher expectations in the turnaround stage;

- Considering the type of the sample, the level of performance in the gazelles period is, as expected, high; this makes it difficult to identify the differences and correlate them with the impact of various factors;

- In the post gazelles and crisis period, the sales growth and the goals achievement confirm, as the matter of fact, the sequence of success of the life cycle stages. Accordingly, the most successful are the growth stages; they are followed by stages of revival and maturity, while the least successful are the stages of decline.

Innovation variable is also treated as an independent variable in this study despite the duality of its role. Both in theory and in the empirical approach, innovation of business entities is most often studied as a feature of technology and product. This is why these two sub-variables are defined for each period and each life cycle stage. Their identification and measurement is taken from the GEM research methodology.

- **Innovativeness of technology** is determined by considering how contemporary (age) the prevailing processes and/or equipment are:
  - 1 - outdated - more than 5 years of age;
  - 2 - modern - 1 to 5 years of age;
  - 3 - to date - up to 1 year of age.

- **Innovativeness of products** is determined by the most contemporary (age) and innovative product in the product range:
  - 1 - outdated - older than 3 years, not new (to anyone);
  - 2 - modern - younger than 3 years, partially new (to some);
  - 3 - innovative - younger than 3 years, a complete novelty (to everyone).

The analysis of variance (F tests - ANOVA) has established a significant impact of innovation on the performance/effectiveness of SMBs – with the significance of $\alpha = 8.2\% (< 10\%)$ for product innovation and goals achievement in the initial period and $\alpha = 5.7\% (< 10\%)$ in the period of crisis; in the period of crisis with $\alpha = 1.3\% (< 5\%)$ and $\alpha = 9.3\% (< 10\%)$ for the level of technology and both, goals achievement and sales growth. The results of this analysis confirm previous findings - advanced technologies and more
innovative product lines improve the performance, i.e. increase the effectiveness of business entities.

**Table 5. Level of innovativeness of technology and products (%)**

<table>
<thead>
<tr>
<th>LEVEL OF INNOVATIVENESS</th>
<th>Initial period</th>
<th>Gazelles period</th>
<th>Period of crisis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technology</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&gt; 5 years</td>
<td>23.68</td>
<td>17.54</td>
<td>28.07</td>
</tr>
<tr>
<td>1 – 5 years</td>
<td>50.88</td>
<td>73.68</td>
<td>64.03</td>
</tr>
<tr>
<td>&lt; 1 year</td>
<td>25.44</td>
<td>8.77</td>
<td>7.89</td>
</tr>
<tr>
<td>Product</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&gt; 3 years not a novelty</td>
<td>41.23</td>
<td>33.33</td>
<td>34.21</td>
</tr>
<tr>
<td>&lt; 3 years partial novelty</td>
<td>38.60</td>
<td>47.37</td>
<td>42.10</td>
</tr>
<tr>
<td>&lt; 3 years complete novelty</td>
<td>20.17</td>
<td>1930</td>
<td>23.68</td>
</tr>
</tbody>
</table>

The independent variable *organizational features* is also defined through two sub-variables, and the identification and measurement are based on the survey data:

- **Autonomy** (as an indicator of business independence: autonomy in decision making on the one hand and exposure to risk on the other) is unique for the whole period observed. This sub-variable is defined as a combination of autonomy in ownership and in business management. The scale of autonomy of ownership complies with the statutory criteria of independence: 1 - dependent (more than 25% ownership of large companies and government) and 2 - independent (up to 25% ownership of large companies and government). To measure the business independence the following scale was created: 1 - limited independence (franchise, exclusive representation, and formal associations), 2 - supported independence (informal associations, networking) and 3 - complete independence.

Based on the previously defined elements, the measurement scale of the autonomy of a business entity is set as following:
1 - low autonomy - when both the independence of ownership and the autonomy of business management are assigned the lowest value (1) - reported by 5.26% of entities;

2 - partial autonomy - when one of the elements (independence of ownership or autonomy of business management) is assigned the lowest value (1) – reported by 21.93% of entities;

3 - complete autonomy - when none of the elements (neither the independence of ownership nor the autonomy of business management) is assigned the lowest value (1) – reported by 72.81% of entities.

### Table 6. Sample structure in terms of centralisation and formalisation (%)

<table>
<thead>
<tr>
<th>LEVEL OF CENTRALISATION AND FORMALISATION</th>
<th>Initial period</th>
<th>Gazelles period</th>
<th>Period of crisis</th>
</tr>
</thead>
<tbody>
<tr>
<td>NO (weaker) centralisation and formalisation</td>
<td>14.04</td>
<td>8.77</td>
<td>10.53</td>
</tr>
<tr>
<td>YES (stronger) centralisation, NO (weaker) formalisation</td>
<td>26.32</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NO (weaker) centralisation, YES (stronger) formalisation</td>
<td>35.09</td>
<td>72.81</td>
<td>71.93</td>
</tr>
<tr>
<td>YES (stronger) centralisation and formalisation</td>
<td>24.56</td>
<td>18.42</td>
<td>17.54</td>
</tr>
</tbody>
</table>

Centralization and formalization result from the two organizational features of business entities, whose definition for each period/life cycle stage is based on the questionnaire data. To measure the centralization, the following scale was set: 1 = NO/weak centralization (participation is present, with or without a formal division of responsibilities/authority,) and 2 = YES/strong centralization (mainly one person in the role of a decision maker). Measurement of formalization is based on the existence of organizational units, task distribution and planning: 1 = NO/weaker formalization (if out of three elements there are two or less present) and 2 = YES/stronger formalization (if all three elements are present). Accordingly, the following categories are defined:

1 - NO/weaker centralization and formalization (project organization);
The analysis of variance (F tests - ANOVA) has found that there is a significant impact of autonomy on the performance/effectiveness of SMBs - in times of crisis with the significance of $\alpha = 4.7\% (< 5\%)$ in terms of sales growth and $\alpha = 3.2\% (< 5\%)$ in terms of achieving goals. The results suggest that with an increased level of autonomy performance/effectiveness levels of SMBs also improve, at least in the crisis period. The analysis of variance (F tests - ANOVA) has indicated a significant impact of centralisation and formalisation on the performance/effectiveness of SMBs - in the crisis period with the significance of $\alpha = 2.8\% (< 5\%)$ in terms of sales growth and $\alpha < 1\%$ in terms of goals achievement. The results suggest that, at least in the crisis period, the most successful entities are in the YES formalization, NO centralization category, and the least successful in the YES formalization, YES centralization category. Apparently, both features hamper flexibility, which is not only one of the key advantages of SMBs, but also a very desirable feature in the crisis period.

- The variable market role is defined in accordance with the theoretical analysis of the market roles which has argued against the concept of the role of nicher in favour of the need to introduce the role of monopolist in the current theoretical and empirical approach to the problem. This variable represents the state of the internal environment (and not a possible marketing strategy goal of a business entity), by using the following measurement scale:

  - 1 - follower (usually following the leader) - in the initial period accounts for 47% of the sample, in the gazelles period 24%, in the crisis period 28%;
  - 2 - challenger (competing for the top position) - in the initial period makes up 57% of the sample, in the gazelles period 65%, in the crisis period 59%;
  - 3 - leader (who takes the lead position) - in the initial period represents 10% of the sample, in the gazelles period 25%, in the crisis period 27%;
4 - monopoly (a single provider on the market) - as expected, it is not represented in the sample.

The analysis of variance (F tests - ANOVA) has indicated that there is a significant impact of the market role on the performance/effectiveness of SMBs - in times of crisis (and previously in the post gazelles period) with the significance of $\alpha = 7.6\% (< 10\%)$ in terms of the goals achievement. The results confirm a logical sequence - the best average grade in the goals achievement (in the crisis period) is scored by leaders (2.93), followed by challengers (2.80) and finally followers (2.39) with the remark that, when this indicator is in question, their differences are greater than the differences that occur with the sales growth.

The variable types / importance of goals is the last variable related to the internal environment. Although goals are a part of the strategy in the broad sense of the term, they can be seen as a reflection of the vision, mission and culture of a business entity. Since most businesses set more goals at the same time, or rather they set them in different business areas, the most appropriate way of measuring this variable is by evaluating the importance of all defined goals, for each period and life cycle stage. In the questionnaire the given categories of goals are assessed by five grades indicating their importance: 1 - lowest to 5 - highest.

Table 7. Survey of the types and importance of the business goals

<table>
<thead>
<tr>
<th>IMPORTANCE OF GOALS (grades 1-5)</th>
<th>Initial period</th>
<th>Gazelles period</th>
<th>Post gazelles period</th>
<th>Period of crisis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial - profit, return of capital ...</td>
<td>2.35 4</td>
<td>2.24 4</td>
<td>2.30 5</td>
<td>2.01 5</td>
</tr>
<tr>
<td>Marketing I – sales/market share growth ...</td>
<td>3.34 1</td>
<td>3.52 1</td>
<td>3.16 2</td>
<td>2.37 4</td>
</tr>
<tr>
<td>Marketing II – customer satisfaction/loyalty ...</td>
<td>3.33 2</td>
<td>3.50 2</td>
<td>3.27 1</td>
<td>3.29 2</td>
</tr>
<tr>
<td>Marketing III – image, market position ...</td>
<td>2.75 3</td>
<td>2.68 3</td>
<td>2.55 4</td>
<td>2.60 3</td>
</tr>
<tr>
<td>Operational – cost optimization, productivity ...</td>
<td>2.17 5</td>
<td>2.21 5</td>
<td>2.77 3</td>
<td>3.55 1</td>
</tr>
</tbody>
</table>
Rank correlation (using the Spearman coefficient \( r_s \)) has found only a slight impact of certain types of goals on performance/effectiveness of SMBs:

- on the goals achievement - in the *gazelles* period there has been only a slight positive correlation with the objective - image/market position of \( r_s = 0.227 \), with \( \alpha = 1.5\% \) (< 5%), and in the crisis period with the goals – customer satisfaction/loyalty, with \( r = 0.178 \) and \( \alpha = 5.8\% \) (< 10%) and the image/market positions, with \( r = 0.20 \) and \( \alpha = 3.3\% \) (< 5%);
- on the sales growth – in the *gazelles* period there has been a slight negative correlation with the objective - image/market position of \( r_s = 0.233 \), with \( \alpha = 1.2\% \) (< 5%), whereas in the post-*gazelle* period a slight positive correlation with the same goal has been found, with \( r = 0.266 \), and \( \alpha = 3.7\% \) (< 5%).

3.2. Measuring the independent variables of the external environment and their impact

The variable *general state of the economy* is the most complex factor that incorporates economic, political, legal, and social aspects of the macro environment in which businesses operate. Defining of this variable, i.e. identifying and measuring it, is based solely on secondary data, primarily public data from official sources (Central Bureau of Statistics, Croatian National Bank, FINA, Croatian Chamber of Economy), complemented by the available analyses of the state of the economy and the environment (Ministry of Economy, Labour and Entrepreneurship, the National competitiveness Council, and GEM Croatia). In accordance with the dynamic approach of this research, the empirical analysis of this variable covers the period from 1995 to 2010, keeping in mind that the first half of the 1990s is a specific/war period. Measuring this variable is based on the dynamics and intensity of the key indicators of the state of economy16 (Butorac, 2009; Samuelson, Nordhaus, 2007; Babić 2007): gross domestic product (GDP), investment (domestic and foreign one) and employment, i.e. unemployment. However, additional indicators are also used to describe the characteristics of this variable (exports/imports, inflation, interest rates, loans, internal/external debt, liquidity/money supply, arrears/insolvency ...), and assessment of the existing situation and environment analysis (changes in the political-economic orientation, investment and business climate, competitiveness, etc.). General

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16 Frequent methodological changes in the measurement/calculation of most indicators, and the lack of a systematic approach to monitoring of some economic indicators and social phenomena, result in a lack of continuity and uniformity of public data, which is a limiting factor for the empirical treatment of this variable.
states of economy have been defined as relatively homogeneous periods based on various combinations and intensity of theoretically described features.

Table 8. An overview of the general state of economy in relation with research periods (in Croatia for the period from 1990 to 2010)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Periods</td>
<td></td>
<td>Initial period</td>
<td>Gazelles period</td>
<td>Post gazelles period</td>
</tr>
<tr>
<td>Tradition/change in the political-economic orientation</td>
<td>transitional</td>
<td>transitional</td>
<td>transitional</td>
<td>transitional</td>
</tr>
<tr>
<td>Stability/variability of macro indicators</td>
<td>very turbulent</td>
<td>moderately turbulent</td>
<td>very turbulent</td>
<td></td>
</tr>
<tr>
<td>Direction of macro indicators</td>
<td>mildly developmental</td>
<td>mildly developmental</td>
<td>recession</td>
<td></td>
</tr>
<tr>
<td>Ease and security of doing business</td>
<td>discouraging</td>
<td>mildly encouraging</td>
<td>mildly encouraging</td>
<td></td>
</tr>
</tbody>
</table>

A total of 73.68% of businesses spent their initial period in the 1st general state of the economy (transitional, very turbulent, mildly developmental, non-supportive), and 26.32% in the 2nd general state of the economy (transitional, moderately turbulent, mildly developmental, mildly supportive). All the business entities included in the sample spent their gazelles and post gazelles periods in this general state of the economy, while they all spent the crisis period in the 3rd general state of the economy (transitional, very turbulent, recession, mildly supportive).

As expected, the analysis (T-test) of both indicators of effectiveness showed a statistically significant difference in the sales growth and in the goals achievement with the transition from 2nd to 3rd general state of the economy, with a significance of $\alpha < 1\%$.

Independent variable sector was also used as a structural feature, i.e. as the criterion of sample representativeness, but this study focuses on its role/relevance as one of the variables of the external environment. Since it is important for a meaningful analysis to determine the exact sector that a business

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17 The economic crisis was officially recognized in October 2008, on the basis of the statistical data.
entity predominantly performs (and not the one it is registered for), the questionnaire rather than the secondary data were used to identify this variable. Despite the detailed identification of sectors, due to the highly likely frequency dispersion, the following categorization of this variable was established:

- 1 - production - includes primary production (agriculture, fishing, mining...) and manufacturing - the main activity performed by 20.18% of the sample entities;
- 2 - services - includes construction industry, tourism and hospitality, business (accounting, legal, IT, consulting...) and other services - the main activity performed by 37.72% of the sample entities;
- 3 - trade - includes trade and related services (e.g. maintenance) - represents the main activity performed by 22.81% of the sample entities;
- 4 - combined - includes a combination of different (usually vertically related) activities (production and trade, services and trade, and other combinations, excluding trade) - represents the main activity performed by 19.30% of the sample entities.

Theoretical elaboration of this variable revealed that differences between sectors are not only the result of their specific features, but also appear because of the different conditions in particular sectors. However, due to the numerous and significant restrictions (limited secondary data, i.e. absence of a significant amount of data in the official statistical records, and the limitations imposed by the research sample, i.e. grouping in basic categories, for which determining their condition loses its purpose empirical analysis of the sector variable in this study does not include the implications of the situation in individual industries, but only those that arise from the specific features of the defined categories of this variable. Therefore, there was no need to apply the dynamic approach when processing this variable.

The analysis of variance (F tests - ANOVA) determined the impact of the sector on SMBs’ performance/effectiveness, or precisely, on the goals achievement in the period of crisis, with the significance of \( \alpha = 8.8\% \) (< 10%). It may be noted that the combined activities experienced the biggest drop in the goals achievement rating - from 4.09 in the gazelles period (which is also the highest score of achievements in this period), over 3.12 in the post gazelles period, to 2.32 in the crisis (which is also the lowest score of achievements in this period). Such a trend could be explained by the fact that operating in a number of related activities provides greater opportunities in the growth phase, but becomes a burden in the crisis period when the range of products/services
should be rationalized and adjusted to changing conditions, attitudes and consumers’ behaviour.

Although the choice of market is a part of the marketing strategy, in this study the variable market type/size represents the characteristics of different market types and sizes and is therefore considered as an independent variable, i.e. a significant factor of the external environment. Identifying this variable for each period and stage of life cycle is based on the questionnaire data.

**Table 9. Sample structure in terms of market type/size (%)**

<table>
<thead>
<tr>
<th>MARKET TYPE/SIZE</th>
<th>Initial period</th>
<th>Gazelles period</th>
<th>Post gazelles period</th>
<th>Period of crisis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local/regional</td>
<td>57.9</td>
<td>29.8</td>
<td>25.8</td>
<td>26.3</td>
</tr>
<tr>
<td>National</td>
<td>21.1</td>
<td>36.0</td>
<td>48.4</td>
<td>39.5</td>
</tr>
<tr>
<td>Exports</td>
<td>21.1</td>
<td>34.2</td>
<td>25.8</td>
<td>34.2</td>
</tr>
</tbody>
</table>

In scrutinizing the possible implications of different types of markets, the fundamental/symbolic features were identified, and the following categories for this variable have been defined accordingly (Table 9):

- 1 - local/regional market (the smallest, the closest, the most familiar, the most homogeneous ➔ least complex);
- 2 - national market (bigger, farther, less familiar, less homogeneous ➔ complex)
- 3 - foreign market (the biggest, the farthest, least familiar, least homogeneous ➔ most complex).

Market type/size of a business is determined in relation to the market of the largest size or complexity, in which a business entity achieved more than 25% of sales. The analysis has not revealed any statistically significant impact of the market type/size on the performance/effectiveness of SMBs.

The variable customer type/size is observed as an important element of the external environment in this study - characteristics of different customer types and sizes, although the choice of customers (target segment) itself is an integral part of the marketing strategy of a business entity. Identifying this variable, for each period and life cycle stage, is based on the questionnaire data on the type
of customers/consumers who make up more than 25% of the sales of a business entity. To obtain more useful results of the analysis, the variable was divided into two basic features, i.e. two sub-variables:

- **Type of customers** is defined, in view of their implications, by the following categories:
  - 1 - only B2B (business customers only, with a possible subdivision into private and public/non-profit and their combination);
  - 2 - only B2C (only individual customers/consumers);
  - 3 - B2B & B2C (both business and individual customers).

Due to low frequencies, categories 2 and 3 were merged in this study, which reduced the number of categories to 1 - only B2B and 2 - B2C.

**Table 10. Sample structure in terms of customer type/size (%)**

<table>
<thead>
<tr>
<th>Customer feature</th>
<th>Initial period</th>
<th>gazelles period</th>
<th>Post gazelles period</th>
<th>Crisis</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Only B2B</td>
<td>54.4</td>
<td>56.1</td>
<td>54.8</td>
<td>57.9</td>
</tr>
<tr>
<td>B2C (combined or exclusively)</td>
<td>45.6</td>
<td>43.9</td>
<td>45.2</td>
<td>42.1</td>
</tr>
<tr>
<td><strong>Size</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exclusively small</td>
<td>32.5</td>
<td>13.2</td>
<td>11.3</td>
<td>17.5</td>
</tr>
<tr>
<td>Exclusively large</td>
<td>24.6</td>
<td>26.3</td>
<td>32.3</td>
<td>28.1</td>
</tr>
<tr>
<td>Small and large</td>
<td>43.0</td>
<td>60.5</td>
<td>56.5</td>
<td>54.4</td>
</tr>
</tbody>
</table>

- **Customer size**, due to the possible implication of this customer feature, is defined by the following categories:
  - 1 - only small - considering the size of an individual customer it includes individual consumers and small business customers (private, non-profit);

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18 The question is accompanied by a reminder that distributors are not regarded customers, in order to get a clear picture of the actually intended customers, regardless of the distribution channels that are surveyed as part of the marketing mix.
The analysis of variance (F tests - ANOVA) has established the impact of the customer type/size on the performance/effectiveness of SMBs. A statistically significant impact of the type of customers on the achievement of goals was established in the gazelles period ($\alpha = 1.4\%$) and in the period of crisis ($\alpha = 2.6\%$), while the sales growth was influenced by the type of customers in the period of crisis ($\alpha = 7\%$) and by the customer size post gazelles period ($\alpha = 3.8\%$). Interestingly, the types and sizes of customers show contrasting effect on these two indicators of effectiveness - while the B2B only category shows better performance in terms of the goals achievement, they perform less effectively than the B2C category (exclusively or in combination) in terms of sales growth. In terms of sales growth, the small and large category has proved to be the most successful.

4. CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS FOR FUTURE STUDIES

The contribution of this research, i.e. its scientific and practical implications, is certainly derived from the fact that the research, with its dynamic approach, has covered a broad and diverse range of internal and external factors and their influence on the performance, more precisely on the market effectiveness of SMBs.

It should be noted that the study does not include two internal factors, i.e. entrepreneur’s personality and strategy, which are a common subject matter of scientific analysis, and most certainly have an impact upon business performance. However, even though the personality factor is not directly included in the study (because of its complexity and the line of expertise required for its comprehensive study and elaboration), its undeniable influence on other internal factors of SMBs ensures its implicit presence. Thus, the implied presence of this variable, especially in goals, organizational features and innovation, impacts upon strategy defining and the performance of a business entity.

The issue of strategy impact, in particular of the marketing strategy in terms of competitiveness and market performance, is an issue that requires a comprehensive and detailed analysis. Firstly, marketing strategy has the role of
an intermediary between the environmental and performance factors because it is the way of how business entity adjusts/responds to the environment. Secondly, the issue of strategy involves a number of ambiguities and different approaches to marketing strategy defining and classifying, as well as to methodology of its identification and measuring its impact on performance. 19

So, even though personality and strategy are not formally included in this study, it can be concluded that analysed environmental factors together with the dynamic nature of the research ensure a comprehensive overview and insight in the perplexed and simultaneous influence of all the factors on the life and performance of SMBs.

This study confirms that all internal factors (business entity size, life cycle stages, technology and product innovation, organizational features of autonomy, centralization and formalization, market roles, and type/importance of goals) and most external (general state of the economy, sector, and customer type), depending on the period (life cycle stage and general state of the economy), exercise a more or less significant impact on the SMBs’ performance/effectiveness (sales growth and goals achievement). These results are the guidelines for both the scientists and entrepreneurs to pay a proper attention to internal and external factors, keeping in mind their dynamism and variability, and to adjust the theory and the practice accordingly.

The study also provides additional information about the structure and performance of fast-growing SMBs, which is useful for the scientific analysis of these propulsive businesses. Moreover, it is equally useful for SMBs that can use the results obtained in the study to increase their competitiveness, i.e. improve their market performance.

Though in general the results of this study coincide with up-to-date theoretical and empirical conclusions about the environmental influence on business performance, there are limitations for a specific and more detailed comparison, due to the differences that are, at the same time, the scientific contribution of this study. Namely, when results are for SMBs, even fast-growing ones, regardless of the type of economy or the size/power of the country, the differences in methodology (comprehensive combination of

19 This issue has been approached comprehensively and in detail in the doctoral thesis “Modelling effective marketing strategies of SMBs” (Dragnić, 2012). The thorough analysis that was carried out showed that marketing strategy types influence the performance/effectiveness significantly. Moreover, it was confirmed that internal (three of them) and external (all five of them) factors significantly affect the type of marketing strategy.
environmental factors, definition of performance indicators and dynamic dimension of the research) make the comparison scientifically ungrounded. Therefore, further research (on various SMBs samples) is recommended to improve the reliability of the results obtained in this study.

REFERENCES


UTJECAJ UNUTARNJIH I VANJSKIH ČIMBENIKA NA USPJEŠNOST BRZORASTUĆIH MALIH I SREDNJIH POSLOVNIH SUBJEKATA

Sažetak

Cilj ovog rada je povećati razumijevanje problematike malih i srednjih poslovnih subjekata (MSP) kao značajnog pokreta ekonomskog razvoja, posebice njihove tržišne uspješnosti te utjecaja koji na to imaju unutarnje i vanjsko okruženje. Istraživanje je provedeno na brzorastućim MSP-ima (gazelama) u Hrvatskoj, međutim, znanstveni i praktični doprinos rada prelaze nacionalne granice, s obzirom na nedostatan broj sličnih studija u tranzicijskim i malim zemljama, ali i o ovoj vrsti poduzeća općenito. Ovaj rad pruža realističniju sliku promjenjivosti čimbenika okruženja, kao i same tržišne uspješnosti MSP-a, zahvaljujući dinamičkoj dimenziji istraživanja te činjenici da uključuje i period ekonomske krize. Radom je potvrđen (veći ili manji) utjecaj svih osam analiziranih unutarnjih čimbenika (veličine poduzeća, faze životnog ciklusa, inovacije tehnologije i proizvoda, organizacijskih obliježja - autonomije, centralizacije i formalizacije, tržišne uloge te vrste/značaja ciljeva), kao i triju od pet vanjskih čimbenika (općeg stanja gospodarstva, sektora i vrste kupaca) na tržišnu uspješnost/efektivnost MSP-a (mjerenu objektivnim pokazateljem rasta prodaje i subjektivnom ocjenom ostvarivanja poslovnih ciljeva).