

# Serbian Companies reactivity and flexibility and their crisis management efficiency and effectiveness\*

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In a sample taken of 1,000 managers working in Serbian companies we studied the effects of company flexibility and reactivity relating to how effective their crisis management is by presenting them with a hypothetical crisis situation. The results suggest that the more reactive and flexible a company, the more efficient and effective their crisis management is.

**Key words:** flexibility, reactivity, crisis management, effectiveness, efficiency  
**JEL codes** A13, D22, D63, H12

## Introduction

Serbia has passed through a period of dramatic change during the previous fifteen years. However, this did not reflect fully on economic growth since the impact of the international financial crisis and numerous rounds of elections have slowed down necessary structural reforms in the country and led to a loose fiscal policy until 2014. More recently, there has been a greater fiscal responsibility and a reengagement on critical issues such as state owned enterprise reform, public administration reform, and public sector efficiency. In January 2014, Serbia started membership talks with the European Union (EU) after making significant progress in negotiations with Pristina, Kosovo.

Serbia has pursued these reforms while struggling to recover from the impact of the international financial crisis - which led to a 50% spike in poverty and a similar jump in unemployment in the country. As in many countries, the challenge in Serbia is translating a tenuous economic recovery into jobs and poverty reduction in a tight fiscal environment. As a result, Serbia needs to become more competitive and increase productivity in the country.

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Going forward, Serbia's main challenge is to improve living standards in the country and transform economic recovery into jobs in a tight fiscal environment. Increasing exports, productivity, and competitiveness are recommended actions that can help propel the country's economic growth. So, according Alan Hilburg, (2014) a pioneer in crisis management, Serbia and Serbian companies are in chronic crises. Generally we can talk about crises of skewed management values in Serbia. It is caused by managers favoring short-term economic gain and neglecting broader social values and stakeholders other than investors. This state of lopsided values is rooted in the classical business (and politic) creed that focuses on the interests of stockholders and tends to disregard the interests of its other stakeholders such as customers, employees, and the community.

We consider crisis management as the application of strategies designed to help an organization deal with a sudden and significant negative event. A crisis can occur as a result of an unpredictable event or as an unforeseeable consequence of some event that had been considered a potential risk. In either case, crises almost invariably require that decisions be made quickly to limit damage to the organization. For that reason, one of the first actions in crisis management planning is to identify an individual to serve as crisis manager.

A universal maxim in crisis management literature is that crisis preparedness should be high on institutional and policy agenda (Seymour and Moore, 2000; Mitroff, 2003; Boin et al. 2009). The logic is that we need to give serious considerations to, and well-resourced and forward thinking contingency planning of unpredictable events if we want to tame crises and gain control over crisis situations (Elliott, 2009). There are numerous examples on which these arguments rest. Crises have the power (Parker et al, 2009) to destroy entire regions and cities (Hurricane Katrina and New Orleans, the Boxing Day tsunami in Southern Asia). They can be a huge threat to both human and animal populations (bird flu, SARS, BSE). Their consequences may be the extreme destabilisation of institutions, in some cases seriously damaging their legitimacy (UK Ministry of Agriculture, Fisheries and Food during the foot and mouth disease crisis). Crises may lead to the removal of public figures from office (FEMA Director Michael Brown after Hurricane Katrina). Crisis situations may lead to significant, often immeasurable damage to powerful interests (Enron, World-Com). Arguments for 'preparation' are even stronger when we consider the argument of futurist Schwartz (1987), who states that current trends in technology, population changes, medicine, terrorism, ethical conflicts and such, or, the manufacturing of 'inevitable surprises' are, to a large extent, predictable. In this context, the key task of policy-makers and managers in Serbian companies is to create institutional procedures and a cultural climate (Jin, 2010) that will develop the capacities needed to cope with any unpredictable threats that they may encounter (Elliott and MacPherson, 2010). This is not an easy task. Boin and 't Hart (2008) have identified numerous forms of crisis leadership tension (particularly in acute

and post-crisis phases), focusing on the manner in which crisis managers are faced with a 'mission impossible' situation of balancing popular expectation with political reality.

## Literature review and research questions

The issue discussed in this paper is how Serbian companies reactivity and flexibility effects on their crisis management efficiency and effectiveness. In literature we could not find these studies which deal with these relations. Management studies generated large amounts of research on organisational learning (Rashman et al. 2009). These studies generally emphasise the need for dynamic organisational adaptation and learning to cope with market competition and vastly increased information flows in the context of globalisation (Easterby-Smith and Prieto 2008). According to Ostroff, C. and Schmith, N. (1993), organisations that are well-managed are effective and efficient, in both the short and long term. 'Efficiency' is the manner in which a process is carried out. It is measured by the units of input needed in order to generate one unit of output. The system is efficient if it can carry out a process with the least possible amount of energy. To be efficient means to follow a process that utilises the least amount of energy and minimises any waste of energy. On the other hand, to be 'effective' means to produce the result for which the system has been designed in the first place. This means to provide the desired function. In order to be effective, it is necessary to try various solutions before finding the right solution. For this reason, according to the definition, it is necessary to make what many call 'mistakes', in order to become effective (Roux-Dufort, 2009). The more accelerated the rate of change, the less likely that effectiveness and efficiency can harmonise. In an ever-changing environment, needs will either be fulfilled, however ineffectively, or organisations will seek to maintain their efficiency by refusing to change their products or services - which will certainly make them efficient, but not effective. As change accelerates, organisations will, for the most part, have to sacrifice efficiency for effectiveness. If they are unwilling to sacrifice efficiency, they will then have to sacrifice effectiveness. When we look at a company's flexibility and reactivity, we can rely on Volberda (1992) who defines flexibility as a set of management skills and the time it takes to activate these skills in order to increase management control capabilities and to improve the controllability of the organisation. Flexible strategic options are the result of interactions between a company's ability to control a situation on the one hand, and its dynamic capabilities, on the other (O'Neil, 2011). Reactivity relates to how sensitive a company is to a changing environment. It is an attribute which gives a company the ability to create organisational conditions (resources), for example in the following areas: technology, HR, organisation, (Roberts, 2009), corporate and in information systems. Reactivity can be as follows: operational (the ability of an organisation to quickly and efficiently change (Fink et al,

2011)) with regard to operations (the transformational processes of input and output) due to changes in the level of demand or the actions taken by competition, structural (the ability of an organisation to change itself, i.e. its organisational structure (Schulman, 2011)) and strategic (a company's ability to respond to changes in the nature of its activities (rather than changing its volume of activities (Somers, 2009))).

Analysts believe that there is often a match between executive mind set and the dominant values and cultures of the executives' organisation (Bennis and Nanus, 1985; Kanter, 2007; Kets de Vried and Miller, 1986; Martin, 1992). For example, cultural beliefs about power exchanges and organisational reward systems can be influenced by the perceptions of executives (Deal and Kennery, 1982; Kotter and Heskett, 1992). Similarly, executives' own abilities to deal with risk may impact their personal efficiency as related to concerns that exceed the traditionally rational parameters of their organisations' cultures (Shapira, 1995). The perceptions of executive managers determine the cultural beliefs of an organisation on the values and needs of crisis management (Penchant and Midriff, 1992). Many top managers in industries where crisis preparation is not regulated fail to see the importance of crisis management and timely responses to said (D'Avène and MacMillan, 1990; Dutton and Duncan, 1987; Keisler and Sproull, 1982; Nystrom and Starbucks, 2004). The mere existence of policies and procedures can be a false signal of preparedness. If executives and the organisational culture do not support crisis management activities, risk behaviours of employees may "mock" crisis management procedures and policies (Haynes et al., 2011). By thinking about and practicing responses to various incidents, organisations build agility. From a psychological perspective, training that emphasises the cognitive limitations and those personality orientations that might inhibit effective crisis management and training that prescribes strategies to overcome these limitations would seem to enhance preparation (Smart and Vertinski, 1977). Likewise, social-political perspectives strengthen portfolio strategies to mitigate erosion when drawing conclusions and structures that could deepen the crisis (Weick, 1993). Finally, the technological-structural perspective suggests that organisations contemplate the variety of ways in which technological advances could exacerbate losses so that *fail-safe* and *safe-fail* systems can be created. Despite the logic of these arguments, many organisations implement no or few crisis preparations (Mitroff et al., 1996). Executives and managers can develop too much faith (and a false sense of security) in their abilities to successfully prevent dangers when some level of crisis management preparation is adopted (Quarantelli, 2008). A pattern of repeated successes at managing problems with limited crisis management may create a 'comfort zone', leading executives and managers to lose any fears of problems and to become over-confident of their own actions and decisions (Starbuck and Milliken, 2008). An organisation must put its crisis plans into action, as well as develop *ad hoc* responses when faced with unex-

pected events (Gundel, 2005). These reactions, expected and unexpected, planned and *ad hoc*, will most directly influence the degree of success and failure of outcomes (McConnell, 2011). With the above in mind we have formulated research questions as follows:

1. *How companies' and managers' culture and mind sets enable them to deal with crisis?*
2. *What kind of approach to crisis management is prevailing, reactive or proactive?*
3. *How company's reactivity and flexibility effect their crisis management effectiveness and efficiency?*

## Research

### *Sample characteristics*

Over 1,000 Serbian managers from various companies sizes (small 15%, medium 31%, and large 54%) were included in our study. Of that number, 314 participants (31.4%) work at manufacturing companies while the remaining participants (68.6%) are employed in companies that operate within the service industry. 36.7% of participants are from privately-owned firms and 63.3% are from publicly-owned companies.

### *Procedure*

During the initial stage of the study (Podsakoff, 2003) the participants answered a questionnaire which measures the elements of flexibility of the company that they work for. Of the 3,000 questionnaires sent by email to the participants, we received feedback from 1,345 participants (response rate=44.83 %). In the second stage, we sent a hypothetical crisis scenario by email to all those participants who had responded to the questionnaire sent to them during the initial stage. The participants were asked to fill in a TAS:O questionnaire and, on a scale of 1 to 5, to assess the effectiveness and efficiency of crisis management in the hypothetical crisis situation presented (see Appendix 1). This situation is not related with their company situation. In the second stage, answers were received from 1,084 participants. For easier processing, 84 participants were removed in order to form a final sample of 1,000 participants.

### *Variables*

We measured manager's estimation of their companies flexibility by Bassi, L. and McMurrer, D. (2007) questionnaire (see Appendix 3). This questionnaire (Likert scale based, our Cronbach's Alpha=0.941) consists of a set of parameters (drivers) that predict flexibility across a broad array of organizations and opera-

tions. These parameters fall into five major categories: leadership practices, employee engagement, knowledge accessibility, workforce optimization, and organizational learning capacity. In each of those categories, parameters are subdivided into at least four groups. Leadership practices, for example, include those related to managerial communication, inclusiveness, supervisory skills, executive skills, leadership development, and succession planning systems.

Company's reactivity was estimated by managers with TAS:O questionnaire (Myer, 2001). Myer's instrument for assessing reactivity in organisations (TAS:O), was created to present samples of individuals' perceptions of how an organisation reacts to a crisis situation. Myer and his colleagues claim that individual reactions are mostly affective, behavioural, and cognitive or a combination of all three (Myer, Williams, Ottens and Schimdt, 1992), and because companies are made up of individuals, it is realistic to assume that an organisation, as a whole, will react in a similar manner (Pearson and Clair, 1998). TAS:O is a 27-item, 5-point, Likert summated rating scale, our Cronbach's Alpha is 0.884. (see Appendix 2).

## Results

First of all, according performed ANOVA, we find that neither company's size nor their ownership type or type has influence on manager's reactivity, flexibility, efficiency and effectiveness estimation. (see Table 1).

**Table 1: Dependent variables by company's characteristics (ANOVA)**

| Companies characteristics | Variables         | df | F     | sig  |
|---------------------------|-------------------|----|-------|------|
| Type                      | Flexibility       | 1  | .197  | .657 |
|                           | Efficiency of CM  | 1  | 3.817 | .055 |
|                           | Effectivity of CM | 1  | .918  | .338 |
|                           | Reactivity        | 1  | .633  | .427 |
| Ownership                 | Flexibility       | 1  | .706  | .401 |
|                           | Efficiency of CM  | 1  | 3.418 | .065 |
|                           | Effectivity of CM | 1  | .262  | .609 |
|                           | Reactivity        | 1  | 2.542 | .111 |
| Size                      | Flexibility       | 1  | .068  | .794 |
|                           | Efficiency of CM  | 1  | .012  | .913 |
|                           | Effectivity of CM | 1  | .503  | .478 |
|                           | Reactivity        | 1  | .359  | .549 |

In order to answer research questions the results achieved were subjected to SEM analysis. The basic parameters of the SEM analysis indicate that the model that we have suggested is statistically significant and that all relevant parameters

indicate the significance of the analysis within limits that the model deems reasonable. Table 2 offers an overview of these parameters.

**Table 2: Basic parameters, path coefficients and effect sizes of the SEM Analysis**

| Parameter  | Size            | Significance                                   |
|--|-----------------|--|
| Average path coefficient<br>(APC)                      | 0.273           | <0.001   |
| Average R-squared<br>(ARS)                             | 0.203           | <0.001   |
| Average adjusted R-squared<br>(AARS)                   | 0.201           | <0.001   |
| Average block VIF (AVIF)                               | 1.091           | Acceptable if < = 5, Ideal if < = 3.3          |
| Average full co-linearity VIF<br>(AFVIF)               | 2.443           | Acceptable if < = 5, Ideal if < = 3.3          |
| Tenenhous GoF (GoF)                                    | 0.429           | small > = 0.1, average > = 0.25, high > = 0.36 |
| Sympson's paradox ratio<br>(SPR)                       | 1.000           | Acceptable if < = 0.7, Ideal if < = 1          |
| R-squared contribution ratio<br>(RSCR)                 | 1.000           | Acceptable if < = 0.9, Ideal if < = 1          |
| Statistical suppression ratio<br>(SSR)                 | 1.000           | Acceptable if < = 0.7                          |
| Nonlinear bivariate causality direction ratio (NLBCDR) | 1.000           | Acceptable if < = 0.7                          |
| Path coefficients                                      |                 |  |
|  | FLEXIBILITY     | REACTIVITY                                     |
| EFFICIENCY   | 0.362 (p<0.001) | 0.194 (p<0.001)                                |
| EFFECTIVENESS  | 0.360 (p<0.001) | 0.176 (p<0.001)                                |
| Effects sizes  |                 |  |
|  | FLEXIBILITY     | REACTIVITY                                     |
| EFFICIENCY   | 0.151           | 0.058  |
| EFFECTIVENESS  | 0.148           | 0.049  |

The Path Coefficient (Table 3) clearly shows that the link between flexibility and reactivity and the dependent variables (effectiveness and efficiency) is significant and that they move in a positive direction: an increase in the manager's estimation of their companies flexibility and reactivity is associated with the increasing values of their crisis management effectiveness and efficiency estimation. When we analyse the effect size we can see that the effects of flexibility



(0.151 on efficiency estimation and 0.148 effectiveness estimation) are much more pronounced than the effects of reactivity. The effect size of reactivity are relatively low (0.058 on efficiency estimation and 0.049 on effectiveness estimation), however, they are at an acceptable level which allows for their interpretation (Table 3). So we can say that managers estimate higher their company's flexibility and this type of connections fits to crisis management theory about flexibility importance in crisis situations. They recognised importance of well leadership practices, employee engagement, knowledge accessibility, workforce optimization, and organizational learning capacity. Research showed strong connection between these flexibility parameters and crisis management efficiency and effectiveness

## Discussion

Chronical nature of crisis in Serbia reflected on Serbian company's culture and their manager's mind sets: crisis became integral part of their culture but not in manner of crisis management theory. Companies surviving in state protected environment. Managers do not have adequate mind set for dealing with crisis. They are always expected some help from outside and they do not searching for solutions within their company.

Based on the results, we can conclude that crisis management within the companies (or their managers) that participated in the study is poorly developed. Serbian managers (and their companies) understand crisis situations primarily as highly affective situations. They are fully aware of reactivity and flexibility importance for dealing with crisis but their dealing with crisis is reactive in depth. Thus, it seems that they function at the level of learned helplessness (Seligman, 1972) in crisis situations and their own, as well as the fate of the company, lies in the hands of its leaders. This result fits with Erika Hayes James approach. She defines organizational crisis as "any emotionally charged situation that, once it becomes public, invites negative stakeholder reaction and thereby has the potential to threaten the financial well-being, reputation, or survival of the firm or some portion of it. Following results confirms Myer and his colleagues (in this case in Serbia) that individuals' responses to crises are predominantly affective, behavioural, cognitive, or a combination of the three (Myer, Williams, Ottens & Schimdt, 1992), and since organizations are made up of individuals, it is reasonable to assume that organizations, as a whole, react in similar ways (Pearson & Clair, 1998).

Reactions to crises and to crisis management in companies that were involved in the study are REACTIVE IN NATURE and these companies need to strengthen their ANTICIPATORY approach to crisis management.

Companies need to strengthen their flexibility by strengthening the components of learning and involvement and they need to strengthen the volitional and cog-



nitive components relating to their employees with the aim of strengthening the company's reactivity and its effectiveness and efficiency.

Therefore, the companies that participated in our study can only be described, in the context of crisis management, as reactive and that in our country, a company that functions at the level of active crisis management is non-existent, that is to say that it is involved in predicting possible crisis situations and creating response plans.

## Conclusions

The results of research significantly point to the chronically lacking basic skills and knowledge of managers that inhibit the adjustment to the crisis. The constant learning process in this area is crucial for the Serbian company's survival. Current training of our managers is inappropriate for the development needs of their companies and they are unable to adjust to the global crisis. Strengthening of Serbian company's reactivity and flexibility (through well leadership practices, employee engagement, knowledge accessibility, workforce optimization, and organizational learning capacity) and changing their managers mind set (proactive approach to crisis management) is proper way for making them resistant on crisis challenges.

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## Appendix 1

### *Crisis Scenario*

Less than a week ago your organization was hit by a hurricane that destroyed the main infrastructure to the point where the building had to be declared condemned. Two custodial workers were severely injured and one was killed by the tempest. Productivity for the organization has virtually stopped. Because little has been able to be salvaged, people are in a panic about what jobs might “not be needed” when business resumes. Talk has already begun about your organi-

zation possibly having to move its main building 45 minutes south of its current location. The management has had to have several meetings to discuss the immediate future of the organization. To make matters worse, the CEO is on a two-week sailing vacation, and has still not been in contact with anyone from the organization. Without the usual leader in charge, management has divided into factions and remains in opposition about what steps to take first. Many of the employees doubt that a “real recovery” can be made, and many of them hustle to look for new jobs. The employees that don’t or “can’t” leave have begun to align themselves with the different managerial factions.

## Appendix 2

### *TASS: O questionnaire*

1. Motivation to work has remained steady.
2. Assigned responsibilities have not changed.
3. Rumours are more widespread.
4. Standard operating procedures have been suspended.
5. Pride in the organization has faded.
6. Relationships among departments have become increasingly strained.
7. Agendas for meetings are constructive.
8. Interaction with others is unchanged.
9. Absenteeism has become more prevalent.
10. Organizational goals have altered.
11. Productivity is down.
12. Changes in who makes decision have emerged.
13. Loyalty to the organization is wavering.
14. Confidence in leadership to make good decisions is diminished.
15. People have begun to spread unproven information.
16. The way departments interact has changed.
17. Complaints are altering the way business is conducted.
18. Gossip has remained steady.
19. Meeting agendas are unchanged.
20. Routine decision making procedures have not been effective.
21. More people than usual are talking about finding a new position.
22. Day-to-day business has been disrupted.
23. Management’s attention has shifted away from normal business.
24. People are more distracted than usual.
25. Ability to perform assigned responsibilities is stable.
26. Organizational goals are secure.
27. People have to do other people’s jobs.

## Appendix 3

### 1. Leadership Practices

- **Communication.** Senior executives and managers are open and honest in their communications; have an effective process in place for communicating news, strategies, and goals to employees; and ensure that employees know what is expected of them.
- **Inclusiveness.** Senior executives and managers seek and use employee input, work in partnership with employees, and treat them with respect.
- **Supervisory skills.** Managers demonstrate organizational values, eliminate unnecessary barriers to getting work done, offer constructive feedback, provide employees with performance appraisals, and inspire confidence.
- **Executive skills.** Senior executives demonstrate organizational values, eliminate unnecessary barriers to getting work done, offer constructive feedback, and inspire confidence.
- **Systems.** Highly effective systems and processes are in place to identify and develop the next generation of leaders and ensure smooth leadership transitions.

### 2. Employee Engagement

- **Job design.** Work is effectively organized, makes good use of employees' talents and skills, and is interesting and meaningful. Employees have appropriate responsibility to determine how best to do their work, and creative job designs help make jobs fit employees' needs.
- **Commitment to employees.** Employees are secure in their jobs, recognized for their accomplishments, and provided with opportunities for advancement.
- **Time.** The workload allows employees to do their jobs well, make thoughtful decisions, and achieve an appropriate balance between work and home.
- **Systems.** Systems help retain good performers by continually evaluating trends in employee engagement and providing information that can be used to determine the key drivers of productivity and customer satisfaction.

### 3. Knowledge Accessibility

- **Availability.** People have the necessary manuals, tools, and information they need to do their jobs, and there are procedures in place that enable employees to access training when they need it.
- **Collaboration and teamwork.** Teamwork is encouraged and facilitated; there are places for people to meet informally; and time is set aside for people to share with and learn from one another.

- **Information sharing.** Best practices and tips are shared, improved, and circulated across departments.
- **Systems.** Effective systems are in place to collect and store information and make it available to all employees.

#### 4. *Workforce Optimization*

- **Processes.** Processes for getting work done are well defined and continually improved, and employees are well trained in how to use them.
- **Conditions.** Employees have access to the materials and technologies they need, and working conditions contribute to good performance.
- **Accountability.** Employees are held accountable for producing high-quality work; promotion is based on competence; poor performers are terminated; and employees trust their coworkers to get the job done.
- **Hiring decisions.** Selection is based on skill requirements; new hires receive adequate orientation, induction, and description of required skills; and employees provide input into hiring decisions.
- **Systems.** Highly effective systems and processes are used to manage employees' performance and talents, view the overall proficiency of the workforce, help employees realize their full performance potential in their current jobs, identify development opportunities for those experiencing performance difficulties, and prepare motivated employees to progress in their careers.

#### 5. *Learning Capacity*

- **Innovation.** New ideas are welcomed; employees are encouraged to find new and better ways to do work; and employees' input is sought in solving problems.
- **Training.** Training is practical, supports organizational goals, and is provided for employees on work-related technologies.
- **Development.** Employees have formal development plans in place, and they use those plans to achieve their career goals.
- **Value and support.** Leadership behavior consistently demonstrates that learning is valued, and managers consistently make learning a priority.
- **Systems.** A learning management system automates the administration of all aspects of training and learning events, provides reports to management, and includes features such as content management and skill or competency management.