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## PERCIEVED ORGANIZATIONAL EFFICACY IN INTERNATIONALIZED COMPANIES: Application of Competing Values Approach and Collective Efficacy

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#### **INTRODUCTION**

Organizations exist in turbulent environments, where they face a range of scenarios: from the need to introduce the innovations in the production process or change the trade procedures to market globalization. It is not sufficient only to try to maximize strengths and opportunities of business conditions and to avoid weaknesses and threats. It becomes even more important to foresee future potential environments and to adapt rapidly to the probable changes. Successful implementation of organizational strategy depends on how well organizational competencies and capabilities are developed. Competencies and capabilities derive from employees. What employees think about their organization and which image of it they hold will influence organizational functioning (Lawler & Worley, 2006).

The present dissertation focuses on employees' beliefs of organizational capacity to be efficacious. There are two constructs which treat this kind of employees' beliefs – organizational effectiveness and collective organizational efficacy. Here the concept of organizational effectiveness is considered from competing values perspective (Quinn & Rohrbaugh, 1981), while collective organizational efficacy is based on Bandura's theory of collective efficacy (Bandura, 1997). Often evaluation of organizational functioning is related to objective measure of organizational performance. In this dissertation we evaluate employees' beliefs of organizational capacity to be efficacious; hence we treat perceived, but not actual, organizational performance. Therefore in the present dissertation we use the term of perceived "organizational efficacy" keeping in mind subjective evaluations made by employees.

Initially, competing values approach was proposed as a kind of objective measure of organizational performance, but in further studies no correlations with objective indicators of organizational performance were found (Rohrbaugh, 1981). And no attempts were made to utilize it in assessment of subjective employees' evaluations of organizational performance. Nevertheless it provides multiple criteria of organizational functioning, and employees' perception of them reflects employees' confidence in organizational capacity to be efficacious.

Collective organizational efficacy is based on employees' beliefs not only about how well their organization is able to perform, but also how well they are able to coordinate efforts in order to achieve organizational goals (Bohn, 2010). Collective organizational efficacy concerns employees' beliefs both of entire organization and of specific organizational contexts. This concept was traditionally used in assessment of employees' beliefs of organizational capacity to be efficacious, and numerous studies investigated predictors and outcomes of collective organizational efficacy (e.g., Bradford, 2011; Ross & Gray, 2006).

Employees with positive beliefs of organizational efficacy demonstrate more resilience, set more difficult goals, and become more motivated and engaged in the work process. Consequently, organizational performance is improved (Bakker & Leiter, 2010; Bandura, 1993). Most of the studies in this area of research focused on individual beliefs and their impacts on individual-level processes, such as self-efficacy, work engagement, and individual job performance (e.g., Linnenbrink & Pintrich, 2003; Luthans et al., 2005). Few studies investigated linkages between collective beliefs of organizational efficacy and collective-level impacts, as, for example, collective work engagement.

Employees' beliefs are not static; they are closely related to organizational environment (Bandura, 1997). When changes occur, employees' beliefs of organizational efficacy fluctuate too. Some attempts were made to match competing values with organizational life cycles (Quinn & Cameron, 1983), but no studies have investigated how perceived organizational efficacy may vary across different types of organizations.

To summarize, in the present dissertation organizational efficacy is considered from two perspectives: competing values approach and collective organizational efficacy. We believe that these two perspectives together may provide a more comprehensive understanding of employees' beliefs of organizational capacity to be efficacious. The relation between beliefs of organizational efficacy and other organizational phenomena, as collective work engagement and leadership style, is also investigated. Organizational efficacy and collective work engagement are compared in different types of organizations.

Chapter 1 focuses on organizational effectiveness and collective organizational efficacy. This chapter aims to establish whether competing values approach and collective organizational efficacy apply to the same underlying construct – perceived organizational efficacy. It also aims to test the psychometrics characteristics of instruments proposed by both perspectives.

Chapter 2 seeks to answer whether beliefs of organizational efficacy have positive impact on collective work engagement. For this aim the factorial validity of the collective work engagement scale, developed on the base of shortened version of Utrecht Work Engagement Scale (Schaufeli & Bakker, 2003), is tested. Finally, the role of transformational and transactional leadership in relation between organizational efficacy and collective work engagement is investigated.

Chapter 3 extends knowledge about how employees' beliefs of organizational efficacy and collective work engagement may vary across organizations. We compare three groups of companies on the different stages of internationalization. Each stage of internationalization is associated with drastic changes of internal and external organizational environment. Employees evaluate their

organizations differently according to how well their organization manages the changes of organizational environment. We investigate how employees' beliefs of organizational efficacy and collective work engagement may vary on the different stages of internationalization.

### **CHAPTER 1**

# Organizational Effectiveness and Collective Organizational Efficacy: Two Sides of the Same Coin?

#### Summary

This study explores the relationship between two constructs referring to employees' beliefs of organizational capacity to be efficacious - organizational effectiveness and collective organizational efficacy, and aims to test the factorial structure of the instruments used to measure them. Employees (N = 358) of 13 Italian companies of the Food & Beverage sector participated in this study. Their perception of organizational effectiveness was measured using the competing values instrument developed by Rohrbaugh (1981). The eight-factor structure of this instrument was confirmed by exploratory and confirmatory factor analyses. Employees' beliefs concerning collective organizational efficacy were measured using general and specific collective organizational efficacy scales. The general collective organizational efficacy scale was developed by Bohn (2010). Its threefactor structure not confirmed, and a two-factor structure was proposed. Specific collective organizational efficacy scale was developed on the base of the interviews with commercial directors of nine exporting companies regarding international market entry. The one-factor structure and high reliability of this scale was confirmed. Statistical analysis revealed that organizational effectiveness and collective organizational efficacy (both general and specific) are interrelated constructs. Suggestions for future research are indicated.

Keywords: organizational effectiveness, competing values approach, collective organizational efficacy

#### **1.1.INTRODUCTION**

The study of organizational effectiveness is not a new area of research. Indeed any organizational theory in social and behavioral science includes the construct of effectiveness (Pennings & Goodman, 1977). But the understanding of what constitutes the core of the construct was always one of the main theoretical problems for organizational science.

On the one hand, organizational effectiveness had been equated with performance, and some authors used these terms as interchangeable (Kanter & Brinkerhoff, 1981). Performance measurement is mainly based on financial measures, such as market share, productivity, profitability, product quality, and sales growth (Venkatramen & Ramanujam, 1986). Organizational effectiveness focuses on financial and social indicators of organizational activity: not only amount produced and quality of products/services, but also motivation, health, satisfaction of individual human resources (Judge, 1994). Hence, the variables underlying these constructs have different nature (March & Sutton, 1997). The domain of organizational effectiveness is broader than the domain of organizational performance, and effectiveness and performance are two complementary streams of research evolved differently (Henri, 2004).

On the other hand, usually in order to evaluate organizational effectiveness employees' judgments about performance of their organizations has been collected. Thus, not actual performance of an organization according to some "objective" criteria was evaluated, but perception of effective performance from the employees' point of view (Rohrbaugh, 1981), or their confidence in the organizational capacity to perform well. Another construct which evaluate perception of employees regarding organizational activity can be found in the literature – collective organizational efficacy (Bandura, 1997). No studies have been done before to explore the relationship between the constructs of organizational effectiveness and collective organizational efficacy. In the present paper we define two constructs, give the brief description of their development in the organizational science. Then we illustrate and validate the instruments proposed to measure them and analyze the relationship between these constructs.

#### **1.2.ON THE NATURE OF ORGANIZATIONAL EFFECTIVENESS**

In the general definition, organizational effectiveness is defined as "the ability of organizations to acquire and efficiently use available resources to achieve specific goals" (Steers & Black, 1994, p. 326). But this definition does not explain what composes the core of this organizational phenomenon. Cameron emphasized the paradoxical character of effective

organizations: "Organizational effectiveness is inherently paradoxical. To be effective, an organization must possess attributes that are simultaneously contradictory, even mutually exclusive" (Cameron, 1986a, p.544). More effective organizational behavior is seemed to be characterized by opposite attributes: being both short- and long-term focused, being both flexible and rigid, being both centralized and decentralized. Lawler & Worley (2006) argued that to be effective means to be able to change oneself and to maintain own identity. Nowadays organizations are found themselves in the constantly changeable environment. It becomes important not only how well the company is doing today but also how well it can adapt itself to the environmental changes in the future. At the same time each organization has dominant characteristics of organizational business, i.e. its own identity. And in spite of the changing environment, effective organizations remain true to their identity. In other words, the presence of simultaneous opposites in organizations creates the highest level of effectiveness.

As we can see organizational effectiveness concerns many domains of organizational activity, and the concept of organizational effectiveness is rather broad. To compare organizations, to evaluate the outcomes of organizational change, and to find characteristics which are associated with organizational effectiveness, researchers need to define a criterion of it. Organizational effectiveness is inherently tied to the definition of what an organization is. Depending on how organizations are conceptualized, the construct of effectiveness is operationalized and measured (Baker & Branch, 2002; Cameron, 1995; Goodman & Pennings, 1980). We made a search of Proquest and classified five research streams to operationalization of organizational effectiveness taken place in the literature during last decades: the open-system approach, goal accomplishment model, multiple constituencies model, and competing values approach.

*The Open-System Approach.* Georgopoulos & Tannenbaum considered organizations as open-systems which maintain themselves. They define organizational effectiveness as "the extent to which an organization as social system, given certain resources and means, fulfills its objectives without incapacitating its means and resources and without placing undue strain upon its members" (Georgopoulos & Tannenbaum, 1957, p.535). They distinguish three criteria of effectiveness:

- 1) Organizational productivity that reflects economic efficiency.
- 2) Organizational flexibility which means adjustment to the internal organizational changes and adaptation to external changes.
- Absence of intraorganizational strains and conflicts between organizational subgroups (Georgopoulos, 1986).

The main strength of this approach is the presence of criterion flexibility. This approach admits changes in organizational environment and emphasizes the necessity of organizational adaptation to them. But this approach is based on the theoretical formulations and no empirical confirmations if these criteria were done.

Goal Accomplishment Model. The goal accomplishment model considers organizational effectiveness as an extent of goal accomplishment; thus, to evaluate organizational effectiveness it is necessary to identify organizational goals (Hannan & Freeman, 1977). This model considers a variety of organizational goals, but this does not imply that one goal is more important than another (Hoy & Hellriegel, 1982). Therefore this model provides more comprehensive evaluation of organizational effectiveness in comparison with open-system approach. But it is necessary to take into consideration that each organization has operative and formally stated, public goals, and these types of goal may be differ. Operative goals usually aren't declared, but nevertheless they have a strong impact on the organizational behavior and may lead the organization to act incongruently with the public goal. If we know only public goals, it is difficult to compare organizations: it is often unclear which organizational action is relevant to goal accomplishment. Another weakness of this model is that it does not develop any valid measure instruments. To study organizational effectiveness in a given organization, researchers have to use survey instruments and in-depth interviews (Hoy & Hellriegel, 1982), but these methods cannot guarantee correct confront between organizations.

Rational system framework in general, and open-system and goal accomplishment models in particular, considers organizational effectiveness as a stable phenomenon. But organizational effectiveness may change with changing of the constituency from which perspective the effectiveness is evaluated.

*Multiple Constituency Model.* Zammuto (1984, p.614) suggested that "the construct of organizational effectiveness refers to human judgments about the desirability of the outcomes of organizational performance from the vantage point of the varied constituencies directly and indirectly affected by the organization". Constituencies represent common-interest groups, e. g., organizational subunits, suppliers, buyers. These diverse constituencies use different basis of the judgment about organizational effectiveness. Therefore often we meet with the problem of selection of appropriate criteria of effectiveness (Friedlander & Pickle, 1968; Jobson & Schenck, 1982; Scriven, 1991). The preferences of constituencies may change over time too: what is effective performance at a given time is seen as being ineffective at another because the context has been changed (Connolly, Conlon & Deutsch, 1980).

An organization is effective to the extent it satisfies the interests of one or more constituencies associated with it. Each organization has multiple constituencies, and it is not able to satisfy all of them simultaneously. To evaluate effectiveness of a given organization, we need to measure the extent to which this constituency is satisfied with the results of organizational activity (Tsui, 1990). As constituencies of different organizations are differing, this approach does not allow us to make any valid organizational comparison. Moreover, according to this model an organization could be found effective even if it does not possess any competitive advantage, as long as the interests of key constituencies are satisfied (Martz, 2008).

This discussion evidences that none of discussed approaches can be universally accepted. There is a need to use multiple criteria for measurement of organizational effectiveness (Gbadamosi, 1999). The competing values approach incorporates many of the earlier perspectives and takes into account the main advantages and limitations of previous approaches (Denison & Spreitzer, 1991). Below it is discussed how this approach explains organizational effectiveness with a variety of evaluation criteria.

#### **1.2.1.** Competing values approach

In the framework of competing values approach organizational effectiveness is viewed as a value-based judgment about the performance of an organization (Quinn & Rohrbaugh, 1981). This construct has a multidimensional structure.

For the first time, the multidimensional structure of the construct of organizational effectiveness was demonstrated by Cameron (1978). He conducted series of interviews in colleges and universities, asking individuals about effectiveness of their institutes. He found that organizational effectiveness could be considered not only from the position of different constituencies (in colleges they are students, deans, administrators, head of academic departments), but also on the different levels of analysis (individual, such as student educational satisfaction, of organizational subunits, such as quality of the faculty, or of entire organization, such as community interaction), and may reflect different organizational activities (e.g., goal accomplishment, or interaction with environment). Thus, he concluded that the construct of organizational effectiveness is composed of multiple domains, and each domain implies its own criteria of effectiveness.

Later, Quinn & Rohrbaugh (1981; 1983) started with 30 criteria which Campbell (1977) had retrieved from the organizational literature as measures of organizational effectiveness. Quinn & Rohrbaugh asked organizational theorists and researchers to organize and reduce that list eliminating any criterion that was (1) not at the organizational level of analysis; (2) composite of several criteria but not a singular index; (3) not a construct but an operationalization; (4) not about organizational functioning. As a result, the list was reduced to 17 criteria (see Appendix for the description of the criteria). Using multidimensional scaling, these criteria were organized into three dimensions, representing competing or contrasting values (see Figure 1.1).



Figure 1.1. Three-dimensional Model of Effectiveness (from Quinn & Rohrbaugh, 1983)

The horizontal dimension displays the first set of competing values – internal versus external focus. These values represent contrast between an internal, person-oriented focus, and an external, organization-oriented one. The vertical dimension displays the second set of competing values – flexibility versus control. These values reflect different organizational preferences for structure: stability and control or flexibility and change. The third set of competing values – means versus ends. The contrast is found between ends (short term processes, e.g., planning and goal setting) and means (long term outcomes, e.g., productivity). Organizations may face difficulty of balancing between means and ends – they may concentrate more on the way they do their work (the means) than on what they achieve by doing the work (the ends), or vice versa.

Organizational effectiveness is viewed as a multiple construct consisting of four organizational models (Faerman & Quinn, 1985; Quinn & Cameron, 1983); each model is composed of sets of competing values (human relation, open system, rational goal, and internal process model). The authors proposed to use these models, individually or together, as distinct dimensions of effectiveness. For example, if we measure organizational effectiveness only in terms of morale and cohesion, it would suggest a value upon members rather than organization, an interest in flexibility instead of control, and a primary concern about means as opposed to ends.

There is a relationship between stages of development in organizational life cycle and models of organizational effectiveness (Cameron & Whetten, 1983; Faerman & Quinn, 1985; Quinn

& Cameron, 1983). The entrepreneurial stage is associated with open system model of effectiveness where innovation, creativity, search and organization of resources are fundamental. Organizational effectiveness in this early stage is associated with flexibility and attention to external environment. In the second, collectivity stage, there is a strong sense of commitment among organizational members, communication and structure are informal, and there is a strong sense of mission; the human relations model of effectiveness is typical for this stage. There is a shift to internal effectiveness criteria but flexibility and external issues still remain important during this stage. In the third stage, the formalization and structure stage, the organization begins to develop more structure, policies, procedures, and rules, therefore the criteria associated with the internal process and rational goal models of effectiveness become crucial. There is a strong shift from an emphasis on flexibility to an emphasis on stability. At least, in the elaboration and adaptation stage, organization again places strong emphasis on adaptability and external environment, therefore the criteria associated with the open system model move in the forefront.

#### 1.2.2. Evaluating Organizational Effectiveness

Despite this approach proposes numerous attributes of organizational effectiveness, it also proposed an instrument to assess organizational effectiveness. Rohrbaugh (1981) developed a questionnaire which describes staff perceptions of effectiveness. On the basis of the answers of the questionnaire he also proposed to use graphic representation of organizational effectiveness profile (see Figure 1.2). Such graphic profile allows to interpret quickly the results of the evaluation of effectiveness and helps to identify imbalances. Other studies, using multitrait-multimethod analysis, multidimensional scaling, and structural equations modeling, confirmed the four-factor structure of the competing values (Kalliath, Bluedorn, Gillespie, 1999; Quinn & Spreitzer, 1991).

No organization will find itself totally in one quadrant (e.g., the internal process model), but it will share some aspects of all four models (Faerman & Quinn, 1985; Quinn & Cameron, 1983; Rohrbaugh, 1981). Yeung et al. (1991) found that the best performers are organizations with balanced and high scores across the four models. Cameron & Freeman (1991) found that cultures which emphasized internal process model at the expense of other values were poorer performers. Effective organization is able to the best balance between the set of competing values. Indeed, some level of stability as well as of flexibility and adaptability is necessary in an organization; or control and discipline must coexist with some degree of autonomy. In other words, this approach admits the paradoxical character of effectiveness. Moreover competing values approach admits also the presence of various constituencies who evaluate organizational effectiveness in a different way, and therefore emphasize different criteria/models of effectiveness as more or less important for organizations (Awasthy & Gupta, 2004; Buenger, Daft, Conlon & Austin, 1996; Walton & Dawson,

2001). For this reason attempts to correlate competing values to objective indicators of organizational performance failed. Employees' perceptions of effectiveness differed across organizational roles and levels in the hierarchy. Further, researchers were unable to establish a solid connection between alternative, multiple "objective" measures of performance on most of the competing values criteria. Finally, on most of the competing values criteria, the "objective" measures did not correlate strongly with the "subjective" perceptions of the employees, and even in a single organization some offices were more effective than others on the basis of direct and immediate comparisons (Rohrbaugh, 1981).



Office G: Overall Performance



For all these reasons, one could treat eight criteria of effectiveness not as "objective" measures of organizational performance, but as personal judgements about organizational capacity to be efficacious. Competing values approach permits to have a multi-faceted measure of employees' beliefs.

#### **1.2.3.** Extensions of Competing Values Approach

The competing values approach has been extended and applied to two main research streams: organizational culture and leadership roles. Based on competing values Cameron & Freeman (1991) defined four types of organizational culture: clan, adhocracy, hierarchy, and market. The assessment of organizational culture adopting the competing values approach was widely used in other studies (Choo, 2013; Howard, 1998; Yeung, Brockbank & Ulrich, 1991; Zammuto & Krakower, 1991), and cross-cultural validity of such assessment was confirmed too (Deshpandé & Farley, 2007; Lamond, 2003). Kwan & Walker (2004) demonstrated how this

instrument could not only describe a culture of a given organization, but be successfully used to differentiate organizations using culture typology. Goodman, Zammuto & Gifford (2001) examined the relationships between organizational culture type and several important job related variables, such as organizational commitment, job involvement, empowerment, job satisfaction, and turnover. Their results suggest that group cultural values are positively related to organizational commitment, job involvement, empowerment, empowerment to turnover. While, hierarchical cultural values are negatively related to organizational commitment, job involvement, empowerment, job involvement, job involvement, empowerment and job satisfaction, and negatively related to intent to turnover.

Also each model of competing values was matched to certain managerial leadership role (Di Padova & Faerman, 1993; Quinn, 1984; Vilkinas & Cartan, 2006). Roles from the upper quadrants (facilitator, mentor, innovator, and broker) were defined as transformational roles; roles from bottom quadrants (producer, director, coordinator, and monitor) were defined as transactional roles. The dimensions of competing values leadership were confirmed (Belasen & Frank, 2008), the cross-cultural applicability of this model, developed initially for Western countries, was tested for leadership behaviors of managers from other cultures (Vilkinas, Shen & Cartan, 2009). Competing values model of leadership was adapted and applied in different contexts – from student leadership to cross organizational comparison of effective leadership behaviors (Belasen & Frank, 2008; Buckner & Williams, 1995; Smart, 2003). Moreover the linkage between culture types and leadership in organizations was found: transformational and transactional leadership were related to certain culture types based on the competing values model (Hartog, Van Muijen & Koopman, 1996).

The competing values approach can be used to assess beliefs of organizational effectiveness and to compare organizations based on it, to judge about organizational change and to select change strategies (Edwards, Faerman & McGrath, 1986; Quinn & McGrath, 1982). An example of such practical application of this approach could be the work of McGraw (1993), who used the competing values instruments to examine the culture in different plants of the Ford Motor Company. Another paper reports two case studies of Apple Computer and General Electric and illustrates how profiles of the competing values model could be matched with strategies of business change (Bluedorn & Lundgren, 1993).

We can conclude that the competing values approach demonstrated its validity and applicability, also in the cross-cultural context, and in the present paper we continue the theoretical extension of this approach analyzing its relation to another construct which evaluate organizational functioning according to employees' perceptions – collective organizational efficacy.

## 1.3.COLLECTIVE ORGANIZATIONAL EFFICACY: ORIGINS, DETERMINANTS AND EFFECTS, AND MEASUREMENT

As we stated above, the competing values approach considers organizational effectiveness as value-based judgments about performance in an organization. Therefore the competing values instrument evaluates not actual performance of an organization according to some "objective" criteria, but perception of effective performance from the point of view of members of a given organization. In other words, one evaluates a confidence in the ability of an organization to perform well, or to be efficacious. There is another concept which considers organizational activity based on employees' perceptions – collective organizational efficacy.

#### **1.3.1.** From Self-Efficacy to Collective Organizational Efficacy

In organizations people act together to achieve outcomes and they have perceptions about their capabilities and about capabilities of others to perform work, and about ability of the whole organization to produce high performance. The shared belief among members of an organization about the organization's capacity to produce desired outcomes is named "collective organizational efficacy" (Bandura, 1997, p.468). This concept emerged from the concept of "self-efficacy" defined by the same Bandura.

He stated that people's motivation, affective states, and actions are based on what people believe (Bandura, 1993). All of us have some beliefs of our own personal efficacy. On the base of such beliefs self-efficacy is formed. When we achieve success, our belief about own personal efficacy becomes more robust. In case of failures a sense of efficacy weakens. In the same way self-efficacy fluctuates when we observe success or failure of people similar to us, or doing the similar things. Also self-efficacy is influenced by social persuasion and physiological and emotional states of a person (Bandura, 1982).

Self-efficacy strongly determines human's behavior and the quality of individual performance (Bandura, 1995; Maddux, 1995; Wood & Bandura, 1989). Personal goal setting is influenced by self-efficacy: the stronger the perceived self-efficacy, the higher the goal challenges (Locke & Latham, 1990). Beliefs of personal efficacy determine how much effort people expend in goal achievement, and their resilience to failure. In addition, perceived self-efficacy affects stress and depression that people may experience in difficult situations (Bandura, 1991).

Also social groups, as families, communities, social institutions, have their sense of collective efficacy. Unifying efforts people can solve problems and achieve high results easier than each of them can do it alone. But collective efficacy is not a sum of the perceptions of individuals about personal efficacies, it is a group-level attribute which represent a group's capability to

perform as a whole (Borgogni, 2001). Acting together people divide knowledge, experience, ideas, and resources, they coordinate their efforts, and generate beliefs of capacity of the whole group to accomplish a task, and not how well each group's member can manage his own knowledge and skills.

In spite of personal and collective efficacy represent different level phenomena, they have similar functions and operate through similar processes (Bandura, 1997). Thus, collective efficacy influences the type of goals which people put forward, how much effort they put into their group activity, the sense of their resilience in face of obstacles, and the degree of discouragement. This means that collective efficacy affects how well group members act together and how much they accomplish collectively: the stronger the belief about collective capabilities, the more people may achieve (Bandura, 1993; Hodges & Carron, 1992; Myers, Feltz & Short, 2004). When people act interdependently, often their sense of collective efficacy is based on their personal efficacies. Thus, also self-efficacy and collective efficacy are related to some extent (Borgogni, Petitta & Mastrorilli, 2009).

Zaccaro et al. (1995) pointed out some critical differences between self-efficacy and collective efficacy. As it was argued above, self-efficacy reflects beliefs of how well individuals can manage their own skills, experience, knowledge and abilities to accomplish a task, when collective efficacy refers to a group member's beliefs of how well they can coordinate and combine their own resource with resources of other group members, and not only how efficacious each of them could be. This difference has an important implication: a group, which members have moderate knowledge, skills, and abilities, but perceive great collective efficacy, may be more efficacious than those groups, where members possess more resources, but less collective efficacy. Zaccaro et al. (1995) also stated that, in case of collective efficacy, individuals judge the resources possessed by other group members, and whether these resources could be integrated with their own ones to accomplish collective goals. Moreover individuals judge also the willingness of other group members to contribute their knowledge, skills, experience, and abilities to collective effort. In case individuals have perceptions that other group members do not want to invest their capabilities to collective efficacy is observed.

Collective efficacy is not a static attribute. On the one hand, it rises and declines with relationships among group members and with changing conditions of external environment (Bandura, 1997). For example, in the period of conflicts group members may have some difficulties to coordinate their collective effort and collaborate well. On the other hand, collective efficacy is situation specific; that is, collective efficacy reflects judgments about group capabilities in a specific activity, and they could diverge from judgments regarding another group purpose or goal. For

example, medical officers form perception of their collective competence to perform surgery, and not to write in the prescriptions without errors; a research group develops judgments about its competence to discover phenomena and not to play football; and bank clerks focus on the collective capacity to attract clients and their capitals and not to sing well.

As it was noticed above, collective efficacy may be applied to a wide variety of social agents, from families to nations and cultures. One of the subcategory of collective efficacy is collective organizational efficacy. Collective organizational efficacy reflects employees' beliefs of how well the organization where they work can perform and how well they can work together. In spite of some similarities between self-efficacy and collective efficacy, there is an important distinction between collective organizational efficacy and self-efficacy: a person may have a strong sense of self-efficacy but works in an organization that is failing, and on the contrary, a person with low self-efficacy may work for a company with strong organizational efficacy (Bohn, 2010). Organizational capabilities to perform well include understanding of market opportunities, generation of innovative ideas, developing of superior products/services, and elaboration of effective strategies for national and international expansion. Most of these organizational activities require a high coordination of employees' efforts. Collective organizational efficacy predicts how well work teams can manage their collective effort in order to perform their work activities (Little & Madigan, 1997). Collective organizational efficacy is important to business, because when employees perceive low collective efficacy, they do not see any sense to make additional efforts toward organizational goal accomplishment.

#### **1.3.2.** Determinants and Effects of Collective Organizational Efficacy

Collective organizational efficacy is determined in part by the same factors that determine self-efficacy, and also it has similar effects. But collective nature of the construct adds other variables to those associated with self-efficacy. Here we consider some important determinants and effects of collective organizational efficacy.

People in organizations share performance experience in order to develop congruent actions. Patterns of success (failure) are more likely lead to development of positive (negative) beliefs of ability to achieve organizational goals (Bandura, 1997). Moreover, sense of collective organizational efficacy is partly based on experience of other similar organizations in similar domains: for example, small firms may have low sense of collective organizational efficacy concerning international market entry if other competitors from the same industry and of the same size were not able to open foreign markets.

Leadership behavior is another important determinant of collective organizational efficacy. The theory of transformational leadership emphasizes that effective leaders encourage their subordinates and enhance the perceptions of their capabilities (Bass, 1985). The study of Bradford (2011) indicated that work teams guided by transformational leadership had greater levels of collective efficacy. Moreover, such teams also perform better, that was confirmed also by Jung & Sosik (2002). The positive correlations between transformational leadership and collective efficacy were confirmed in many studies (Dussault, Payette & Leroux, 2008; Ross & Gray, 2006). Some studies also found a mediating effect of collective efficacy on the relationship between transformational leadership and self-efficacy of persons, or work attitudes of employees (Kurt, Duyar & Çalik, 2011; Walumbwa et al., 2004; Walumbwa et al., 2005). Nevertheless few studies of the collective organizational efficacy and leadership behavior were conducted, and further investigation of the relationship between these constructs is required.

Other internal organizational processes, as communication, collaboration, and cohesion contribute to an overall sense of collective organizational efficacy. Good informational management and communication between employees allow coordinating well their actions; they can act smoothly and develop a high sense of collective efficacy. If employees feel their adherence to the organization where they work, they easier accept norms, roles, performance standards; this enhances their performance capabilities and, as a consequence, they perceive themselves as to be highly efficacious. In several studies (Kozub & McDonnell, 2000; Martínez-Santos & Ciruelos, 2013; Paskevich, Brawley, Dorsch & Widmeyer, 1999; Spink, 1990) group cohesion was considered as one of the effects of collective efficacy: team members perceive their competence which increases desirability of group and therefore cohesiveness. Zaccaro et al. (1995) pointed out that in case of cohesion it is necessary to distinguish between individual-level cohesion (individual's desire of membership) and group-level cohesion (group resistance to disruption). Individual-level cohesion may predict collective efficacy (Heuzé, Raimbault & Fontayne, 2006), when group-level cohesion may be a consequence of collective efficacy, as above-mentioned studies have demonstrated. Collective organizational efficacy has implications for organizational commitment (Borgogni, Dello Russo, Petitta & Latham, 2009; Borgogni, Petitta & Mastrorilli, 2010; Petitta & Borgogni, 2011), organizational citizenship behavior (Chen & Kao, 2011) engagement and job satisfaction (Borgogni, Petitta & Steca, 2001; Stephanou, Gkavras & Doulkeridou, 2013).

If members feel confident in their collective capacities, they will be more motivated to work on behalf of the organization, they will demonstrate more resilience in face of obstacles, and will set more difficult goals. Consequently, such employees will perform better than those with low collective organizational efficacy (Bradford, 2011; Katz-Navon & Erez, 2005). Thus, these findings suggest that the effects of collective organizational efficacy are similar to those of self-efficacy: stimulation of great motivation, persistence, vigor, establishment of more difficult goals, and higher performance.

#### **1.3.3.** Measurement of Collective Organizational Efficacy

One can distinguish two approaches to the measurement of collective organizational efficacy: by averaging employees' beliefs of their personal capabilities for particular performance requested by the organization, or by measuring employees' beliefs of their collective capability (Bandura, 1997). As collective organizational efficacy reflects employees' beliefs of how well people in a given organization can work together and coordinate individual resources to achieve organizational goals, the measurement of collective organizational efficacy should assess the judgments of the efficacy of the group as a whole.

Analyzing collective organizational efficacy Bandura (1997) distinguished three categories: "Belief of collective efficacy affects the sense of mission and purpose of a system, the strength of common commitment to what it seeks to achieve, how well group members work together to produce results, and the group's resiliency in the face of difficulties" (p. 469). Based on this definition, Bohn (2010) proposed to measure employees' perceived levels of collective organizational efficacy along these three dimensions: (a) collective capability, (b) mission, future, or purpose, and (c) sense of resilience.

Sense of collective capability reflects whether people in an organization can work together to accomplish the goal. As theorized by Bandura, collaboration between employees is an essential factor of collective organizational efficacy because it speeds decision making, the best solutions are found, and goals are achieved in the most rapid way. Sense of mission, future, or purpose refers to whether employees know where they are going. Sense of mission provides a clear definition of goals and therefore of understanding of what employees need to do. Sense of resilience means the capacity to stay in the face of obstacles. Organizations that have a strong sense of collective organizational efficacy can stand the competitions and can adjust themselves in case of challenges. The items of the Bohn's scale were derived from these three dimensions, and they evaluate overall collective organizational efficacy. The instrument will be presented in detail in the next section of the present paper.

Instead, Borgogni, Petitta & Steca (2001) stated that perceptions of collective organizational efficacy do not correspond to any general sense of competence or appraisal, but related to specific organizational situations. Hence, they recommended to develop specific scale for various organizational contexts, considering particular characteristics of these contexts, problems which organizations may face, and organizational behaviors which may occur in each of the contexts. Each item of such scale should reflect the organizational capacity to manage particular situations or

problems in the determined situations. For this scope they considered very useful the Critical Incident Technique (Flanagan, 1954); this technique allows to distinguish "critical" situations and organizational behaviors to overcome them. The descriptions of such behaviors are used in items to measure the perceptions of collective organizational efficacy. The authors emphasized the importance to analyze problems, restrictions, and behaviors for each specific domain of organizational activity which one is going to investigate, and to develop scale for each organization.

The problem of measurement of collective organizational efficacy is not only tied to the problem of selection of general or specific context to investigate, but also to the necessity to aggregate collected individual data and analyze the variability. Zaccaro et al. (1995) have suggested that as collective organizational efficacy refers to a shared belief, it is necessary to aggregate data by computing intraclass correlations in case researchers are interested in an average collective efficacy of a given organization. Shared beliefs should demonstrate less degree of variability within groups than between groups when all other differentiating factors are controlled. In case of significant variance in efficacy beliefs among organizational members some possible consequences could emerge: for example, formation of a strong and hierarchical organizational structure, or lack of harmony between organizational members. Therefore analysis of variability in collective efficacy could bring useful knowledge about organizational dynamics.

As previous discussion demonstrated, competing values approach does not establish objective measurement of organizational performance, and, moreover, the criteria of organizational effectiveness do not correlate with objective measures of performance. Competing values approach evaluates employees' judgments about organizational capacity to produce desired outcomes. On the other hand, collective organizational efficacy treats beliefs, shared among employees about how well their organization performs. In both cases we encounter with subjective employees' perceptions, or beliefs, and not with objective measures of organizational performance. Further in the present paper we investigate the relationship between organizational effectiveness and collective organizational efficacy in attempt to define if they are different constructs or two sides of the same coin.

#### 1.4. STUDY

#### 1.4.1. Research Problems

The different approaches to the definition and evaluation of organizational effectiveness, with their strengths and weaknesses, were discussed above. The competing values approach was recognized as the most comprehensive (Cameron, 1995). The attractiveness of the competing values model could be explained by overarching assessment of organizational functioning which it provides. Nevertheless each research operationalized and measured organizational effectiveness within competing values by its own way. For example, Buenger et al., (1996) developed a 24-item instrument from which the value scales were derived, Quinn (1988) used four scenarios which describe each of the four quadrants in the competing values approach. Moreover, more than 30 years passed after the competing values model was developed. Thus, the confirmation of the structure of the model is still necessary and development of the unique instrument is required.

As it was stated above, collective organizational efficacy is a subcategory of collective efficacy. In spite of similarities between collective efficacy and collective organizational efficacy, they are distinct and collective organizational efficacy is required a special instrument of evaluation. There are two approaches to collective organizational efficacy – general and specific. Bohn (2010) made an attempt to develop a general theoretical model of collective organizational efficacy and proposed an instrument to measure it. As his research is rather recent we did not find any studies which tested a factorial structure of his instrument. He conducted his research on American sample only, and future studies of the construct in different cultures may provide different results. Therefore the validation of the proposed instrument is required. Borgogni et al. (2001) suggested to use specific scales of collective organizational efficacy to measure it in various organizational contexts. In our knowledge no previous studies has used simultaneously both measures.

As the literature suggests, organizational effectiveness reflects the perceptions of employees about how well their organization is able to perform (Quinn & Rohrbaugh, 1981; 1983), but also collective organizational efficacy reflects such shared beliefs of employees (Bandura, 1997). Therefore, as both constructs refer to employees' perception of organizational capabilities, we hypothesize a relation between them. No previous studies has investigated their relationship before.

In the present study we focus on the relationships between organizational effectiveness and collective organizational efficacy. The aims of the present study are three-fold: (a) to test an eight-factor structure of competing values model; (b) to study some psychometrics characteristics of the general and specific collective organizational efficacy scales (factor structure, internal consistency,

between scales correlations); and (c) to analyse the relationship between organizational effectiveness and collective organizational efficacy.

#### 1.4.2. Method

Samples and Procedure. Employees of 13 Italian companies of the Food & Beverage Sector (for a total amount of N=358) took part in the study. Data from nine companies were collected in Italy, while the data from other four companies were collected in Russia, in the commercial offices and/or production branches of these companies in Russia. The questionnaire was developed in two languages, Italian and Russian. The items were translated from English into Italian and Russian using back-translation procedure. Employees filled in 93 questionnaires in Italian language and 265 questionnaires in Russian language. As the size of samples in two countries was not big, we united them in one sample in order to test our hypotheses.

There were 52,7% females and 47,3% males respondents, the ages ranged from less than 25 years (11%) to plus 60 (2,1%), with the majority between 36 and 50 years (38,3%). The range in education was from 7,7% secondary school to 57,8% for higher education. Total years in the company ranged from less than 2 years (37,5%) to more than 10 years (17,4%) with the majority in the company less than 2 years.

Some questionnaires were sent by e-mail to some manager and employees, which filled them in and returned them by e-mail, but most of the questionnaires were handed by the first researcher and filled in writing. The participation was voluntary, and confidentiality was guaranteed.

*Instruments.* The 59-item questionnaire required respondents to indicate their agreement with each statement, using a 6-point Likert scale (1 ="Strongly disagree", 6 ="Strongly agree").

1. Organizational effectiveness

Organizational effectiveness was assessed with 32-items scale of Rohrbaugh (1981), including:

- a) Cohesion, Morale (4 items; e.g. "Co-workers trust each other").
- b) Human Resource Development (4 items; e.g. "Employees possess skills adequate to their assignments").
- c) Information Management (4 items; e.g. "This organization has made good use of MIS (management information system) technology").
- d) Stability, Control (4 items; e.g. "Even during an organizational crisis, we are able to maintain a steady work flow").
- e) Flexibility, Adaptability (4 items; e.g. "Staff members are flexible enough to take on new and different responsibilities").

- f) Growth, Resource Acquisition (4 items; e.g. "Acquiring new financial resources has been a problem for us recently").
- g) Planning, Goal Setting (4 items; e.g. "Staff members are not devoting enough attention to planning for the future").
- h) Productivity, Efficiency (4 items; e.g. "This organization is not very productive").
- 2. Collective organizational efficacy

Collective organizational efficacy was measured with 17-items general collective organizational efficacy scale of Bohn (2010) and with 15-items specific collective organizational efficacy scale, as suggested Borgogni et al. (2001).

The general collective organizational efficacy scale of Bohn includes three scales:

- a) Collective capability (9 items; e.g. "People in this organization can work together to accomplish a goal").
- b) Mission, future, or purpose (5 items; e.g. "This organization has a strong vision of the future").
- c) Sense of resilience (3 items; e.g. "This organization has no hope of surviving more than a year or two").

The specific collective organizational efficacy scale applied to international market activity of the companies. In order to develop it we interviewed the executives of nine exporting companies. Interviewees answered questions about the export experience of their companies and about the difficulties which their companies face when they export the products or work in another country and about how they solve these problems. We found that the main difficulties these companies face concern: understanding foreign consumers, applying norms and standards of foreign market, partnership with foreign clients, the logistics and transportation of goods, international competition, and internal organizational capacity to develop foreign markets.

Based on the interviews we developed more than 25 items regarding the procedures and solutions used to come out of difficult situations. In the second round of interviews we asked the commercial directors to select from these 25 items the most important ones, which in their perspective might be considered as indicators of good performance on the international market. Based on their answers we created a list of 15 items to measure the specific collective organizational efficacy regarding the export activity (e.g. "This company is able to adapt well its products to requests of foreign market").

Items were randomized to minimise response set.

*Fit Indices.* We used Structural Equation Modelling (SEM), implemented by the AMOS program (Arbuckle, 1997), for data analyses. Maximum-likelihood estimation methods were used, and the goodness of fit of the models was evaluated using the following indices: (a) the chi-square goodness-of-fit statistic, (b) the goodness-of-fit index (GFI), (c) the adjusted goodness-of-fit index (AGFI), (d) the root-mean-square error of approximation (RMSEA), (e) normed fit index (NFI), (f) the comparative fit index (CFI). RSMEA values of lower than .08 were assumed to indicate a good fit between the hypothesized model and the observed data. For the GFI and the AGFI no statistical test or critical value is available (Jöreskog & Sörbom, 1986). For the other fit indices the values greater than .90 were considered as indicating a good fit (Byrne, 2009).

#### 1.4.3. Results

*Exploratory and Confirmatory Factor Analyses.* We run exploratory factor analysis firstly for 32-items of Rohrbaugh's scale and then for 17-items of Bohn's scale.

For Rohrbaugh's scale we run exploratory factor analyses (principal component analysis, extract eigenvalues over 1, varimax rotation, pairwise deletion) and extracted six factors instead of eight expected. The results are shown in Table 1.1.

As shown in Table 1.1 all factors are composed of the items belonging to different dimensions. Factor one is composed of the items from planning & goal setting, growth, productivity, information management, and human resource development. The majority of the items refer to Open System and Rational Goal Models, which characterize the external orientation of organization. The second factor is composed of the items from cohesion and human resource development dimensions; these two dimensions form Human Relations Model. The third factor is composed of the items from adaptability, stability, and human resource development dimensions. Interestingly, the opposite competing criteria stability and adaptability were united in one factor. The fourth factor is composed of the items from three items refer to Internal Process Model, and again opposed criteria stability and adaptability and adaptability were united in the same factor. The last two factors are composed of only one item, in both cases from growth scale. Thus, this factor analysis did not confirm eight factors structure of the scale, but nevertheless some similarities to the initial structure could be found. Probably factor analysis with a larger sample is required.

Itom							
Item	1	2	3	4	5	6	
This organization has work objectives that are well defined.	.801						GOAL
Senior management has been quite successful in growing this organization.	.715						GROW
This organization is not very productive. (R)	682						PROD
We deserve a solid reputation for doing our jobs well.	.628						PROD
Employees are kept well informed about decisions that affect their work.	.604						IM
This organization is not keeping its workforce up-to-date in important occupational skills. (R)	603						HRD
Coworkers trust each other.		.835					COHES
There is an atmosphere of friendship at work.		.762					COHES
There are serious conflicts among employees. (R)		701					COHES
Employees possess skills adequate to their assignments.		.557					HRD
Staff members are flexible enough to take on new and different responsibilities.			.799				ADAPT
Even during an organizational crisis, we are able to maintain a steady work flow.			.719				STAB
When change is required, employees adjust well to the new situation.			.668				ADAPT
Staff members have the capacity to do their work quite well.			.578				HRD
We are sometimes frustrated because of information problems. (R)				.728			IM
This organization often seems chaotic. (R)				.644			STAB
This organization is slow in altering its operational routines. (R)				.609			ADAPT
We keep looking for new employees to perform new tasks.					.929		GROW
The size of our workforce has not been increasing. (R)						.936	GROW
Eigenvalues	6.024	1.535	1.353	1.236	1.135	1.024	
Percent of variance explained	17.08	13.84	13.16	8.88	6.04	5.78	

## Table 1.1. Items, Factors, Eigenvalues and Variance of Rohrbaugh's scale (N = 358)

We made an attempt to run one more factor analysis dividing all scales in two groups so that in each group there is only one dimension from the same quadrant of competing values model – cohesion, planning & goal setting, stability, and growth entered in one group; human resource development, adaptability, productivity, and information management entered in another group. Then we run factor analysis (principal component analysis, extract 4 factors, varimax rotation, pairwise deletion) for each group of scales separately. The results are shown in Table 1.2.

As showed in Table 1.2 even if eigenvalues of some factors (growth, productivity, and information management) are lower, than 1, however they explain the high percent of the variance. The Cronbach's alpha coefficients reached acceptable value .70, with the exception of growth, productivity, and informational management scales which were composed of only two items. As the  $\alpha$  depends on number of the items of the scale, lower  $\alpha$  values are expected for scales composed of few items (Howitt & Cramer, 2011). The internal consistency for entire 20-items scale was high, Cronbach's alpha = .90. Thus in the following analysis we consider only items listed in Table 1.2.

In order to test eight factors structure of competing values scale, we fitted our research model (M1) to the data. Two alternative models – four-factor model (M2) and one-factor model (M3) were also tested. The fit of the models is summarized in Table 1.3.

			1	U		,			
	$\chi^2$	df	GFI	AGFI	RMSEA	NFI	CFI	$\Delta \chi^2$	Δdf
M1	421.12	142	.90	.84	.07	.84	.89		
M2	629.09	164	.83	.79	.09	.77	.82	M2-M1 = 207.97	22
M3	781.51	170	.80	.76	.10	.71	.76	M3-M2 = 152.42	6

Table 1.3. The fit of competing values model (N = 358)

The eight-factor model fits well to the data, as RMSEA meeting the criterion of 0.08 and CFI approaching 0.89, which is very close to conventional .90. As expected, the fit of the eight-factor model is better that that of the four-factor model:  $\Delta \chi^2 = 207.97$ , p<0.000. Thus, we accept eight-factor (M1) model of competing values.

For Bohn's scale we run exploratory factor analyses (principal component analysis, extract eigenvalues over 1, varimax rotation, listwise deletion) using reversed items for the resilience dimension, as it was indicated by author (Bohn, 2010). One item was eliminated ("This company will double in size in the next 10 years" from dimension mission & future), the definitive factor structure is shown in Table 1.4.

# Table 1.2. Items, Factors, Eigenvalues and Variance for two separate factor analysis of Rohrbaugh's scale (N = 358)

Factor analyses I							
Item		Component					
Item	COHES	GOAL	STAB	GROW			
Coworkers trust each other.	.874						
There is an atmosphere of friendship at work.	.818						
There are serious conflicts among employees. (R)	672						
This organization has work objectives that are well defined.		.760					
Employees are kept well informed about decisions that affect		.757					
their work.							
Employees have a clear appreciation of this organization's goals.		.711					
This organization often seems chaotic.			.849				
There is a sense of disorder and disorganization in the workplace.			.736				
The size of our workforce has been not been increasing. (R)				.837			
Acquiring new financial resources has been a problem for us				.661			
recently. (R)							
Eigenvalues	3.663	1.283	1.093	.927			
Percent of variance explained	20.71	20.52	16.33	12.11			
Cronbach's alpha	.77	.73	.69	.31			
Factor analysis II							
		Compo	nent				
Item		Compo	nem				
Item	HRD	ADAPT	PROD	IM			
Item         Employees possess skills adequate to their assignments.	HRD .836	ADAPT	PROD	IM			
Item         Employees possess skills adequate to their assignments.         Staff members have the capacity to do their work quite well.	HRD .836 .710	ADAPT	PROD	IM			
Item         Employees possess skills adequate to their assignments.         Staff members have the capacity to do their work quite well.         We deserve a solid reputation for doing our jobs well.	HRD .836 .710 .555	ADAPT	PROD	IM			
ItemEmployees possess skills adequate to their assignments.Staff members have the capacity to do their work quite well.We deserve a solid reputation for doing our jobs well.Staff members are flexible enough to take on new and different	HRD .836 .710 .555	ADAPT .767	PROD	IM			
ItemEmployees possess skills adequate to their assignments.Staff members have the capacity to do their work quite well.We deserve a solid reputation for doing our jobs well.Staff members are flexible enough to take on new and different responsibilities.	HRD .836 .710 .555	ADAPT	PROD	IM			
ItemEmployees possess skills adequate to their assignments.Staff members have the capacity to do their work quite well.We deserve a solid reputation for doing our jobs well.Staff members are flexible enough to take on new and different responsibilities.When change is required, employees adjust well to the new	HRD .836 .710 .555	ADAPT .767 .703	PROD	IM			
ItemEmployees possess skills adequate to their assignments.Staff members have the capacity to do their work quite well.We deserve a solid reputation for doing our jobs well.Staff members are flexible enough to take on new and different responsibilities.When change is required, employees adjust well to the new situation.	HRD .836 .710 .555	ADAPT .767 .703	PROD	IM			
ItemEmployees possess skills adequate to their assignments.Staff members have the capacity to do their work quite well.We deserve a solid reputation for doing our jobs well.Staff members are flexible enough to take on new and different responsibilities.When change is required, employees adjust well to the new situation.Employees are not very receptive to organizational changes. (R)	HRD .836 .710 .555	ADAPT .767 .703 660	PROD	IM			
ItemEmployees possess skills adequate to their assignments.Staff members have the capacity to do their work quite well.We deserve a solid reputation for doing our jobs well.Staff members are flexible enough to take on new and different responsibilities.When change is required, employees adjust well to the new situation.Employees are not very receptive to organizational changes. (R)This organization is not very productive.	HRD .836 .710 .555	ADAPT .767 .703 660	PROD	IM			
Item Employees possess skills adequate to their assignments. Staff members have the capacity to do their work quite well. We deserve a solid reputation for doing our jobs well. Staff members are flexible enough to take on new and different responsibilities. When change is required, employees adjust well to the new situation. Employees are not very receptive to organizational changes. (R) This organization is not very productive. The time and effort of employees is too often wasted in their	HRD .836 .710 .555	ADAPT .767 .703 660	PROD				
Item Employees possess skills adequate to their assignments. Staff members have the capacity to do their work quite well. We deserve a solid reputation for doing our jobs well. Staff members are flexible enough to take on new and different responsibilities. When change is required, employees adjust well to the new situation. Employees are not very receptive to organizational changes. (R) This organization is not very productive. The time and effort of employees is too often wasted in their workplaces. (R)	HRD .836 .710 .555	ADAPT .767 .703660	PROD				
Item Employees possess skills adequate to their assignments. Staff members have the capacity to do their work quite well. We deserve a solid reputation for doing our jobs well. Staff members are flexible enough to take on new and different responsibilities. When change is required, employees adjust well to the new situation. Employees are not very receptive to organizational changes. (R) This organization is not very productive. The time and effort of employees is too often wasted in their workplaces. (R) We know quite well which aspects of our work are the most	HRD .836 .710 .555	ADAPT .767 .703660	PROD	IM			
ItemEmployees possess skills adequate to their assignments.Staff members have the capacity to do their work quite well.We deserve a solid reputation for doing our jobs well.Staff members are flexible enough to take on new and different responsibilities.When change is required, employees adjust well to the new situation.Employees are not very receptive to organizational changes. (R)This organization is not very productive.The time and effort of employees is too often wasted in their workplaces. (R)We know quite well which aspects of our work are the most important.	HRD .836 .710 .555	ADAPT .767 .703660	PROD	IM			
Item Employees possess skills adequate to their assignments. Staff members have the capacity to do their work quite well. We deserve a solid reputation for doing our jobs well. Staff members are flexible enough to take on new and different responsibilities. When change is required, employees adjust well to the new situation. Employees are not very receptive to organizational changes. (R) This organization is not very productive. The time and effort of employees is too often wasted in their workplaces. (R) We know quite well which aspects of our work are the most important. This organization has made good use of MIS (management	HRD .836 .710 .555	ADAPT .767 .703660	PROD	IM			
ItemEmployees possess skills adequate to their assignments.Staff members have the capacity to do their work quite well.We deserve a solid reputation for doing our jobs well.Staff members are flexible enough to take on new and different responsibilities.When change is required, employees adjust well to the new situation.Employees are not very receptive to organizational changes. (R)This organization is not very productive.The time and effort of employees is too often wasted in their workplaces. (R)We know quite well which aspects of our work are the most important.This organization has made good use of MIS (management information system) technology.	HRD .836 .710 .555	ADAPT .767 .703660	PROD	IM			
Item Employees possess skills adequate to their assignments. Staff members have the capacity to do their work quite well. We deserve a solid reputation for doing our jobs well. Staff members are flexible enough to take on new and different responsibilities. When change is required, employees adjust well to the new situation. Employees are not very receptive to organizational changes. (R) This organization is not very productive. The time and effort of employees is too often wasted in their workplaces. (R) We know quite well which aspects of our work are the most important. This organization has made good use of MIS (management information system) technology. Eigenvalues	HRD .836 .710 .555	ADAPT .767 .703 660 1.016	PROD .846 .627 .935	IM 			
Item Employees possess skills adequate to their assignments. Staff members have the capacity to do their work quite well. We deserve a solid reputation for doing our jobs well. Staff members are flexible enough to take on new and different responsibilities. When change is required, employees adjust well to the new situation. Employees are not very receptive to organizational changes. (R) This organization is not very productive. The time and effort of employees is too often wasted in their workplaces. (R) We know quite well which aspects of our work are the most important. This organization has made good use of MIS (management information system) technology. Eigenvalues Percent of variance explained	HRD .836 .710 .555	ADAPT ADAPT .767 .703660 1.016 18.24	PROD .846 .627 .935 16.71	IM .810 .702 .788 14.91			

Itam	Comp	onent	
nem	1	2	-
People in this organization can work together to accomplish a	.834		COLLABOR
goal.			
People in this organization can mobilize efforts to accomplish	.820		COLLABOR
difficult and complex goals.			
In this organization, everyone works together very effectively.	.798		COLLABOR
In this organization, we coordinate our efforts to complete	.788		COLLABOR
difficult projects			
This organization can meet customer requirements because the	.781		COLLABOR
employees are extremely competent.			
People here have a sense of purpose.	.734		COLLABOR
During an economic downturn, this organization will come out	.732		MISS&FUT
strong.			
People in this organization can take on any challenge.	.722		COLLABOR
This organization is far more innovative that most organizations.	.675		COLLABOR
This organization can beat our competition.	.625		COLLABOR
This organization has a strong vision of the future.	.594		MISS&FUT
Because this organization is likely to fail, I would never		.875	RESILIENCE
recommend that a friend work here.			
I would be surprised if this organization exists in 5 years.		.856	RESILIENCE
This organization has no hope of surviving more than a year or		.854	RESILIENCE
two.			
This organization is likely to fall apart in a few years.		.843	MISS&FUT
This organization is confident about its future.		.612	MISS&FUT
Eigenvalues	8.146	2.211	
Percent of variance explained	39.81	24.92	

Table 1.4. Items, Factors, Eigenvalues and Variance of Bohn's scale (N = 358)

As showed in Table 1.4 two factors instead of three were extracted; the first component combined items from collaboration and mission & future scales (and we named this component as "organizational capacity" – employees' beliefs in organizational capacities to be efficacious), the second component united items from resilience and mission & future scales (and we named this component as "organizational future" – employees' beliefs of organizational future growth and development).

We calculated Cronbach's alpha for three dimensions proposed by the author, and also for two dimensions extracted from our factor analysis. For the dimensions proposed by the author we got the following Cronbach's alpha coefficients: .92 for collaboration, .81 for mission & future, .86 for resilience. For the dimensions extracted during our factor analysis we got the following Cronbach's alpha values: .93 for organizational capacity, and .89 for organizational future.

As the Cronbach's alpha values achieved high levels in both cases, the data were also subjected to confirmatory factor analysis using SEM. We fitted three-factor model of collective organizational efficacy (M1), as it was proposed by Bohn, and also we tested two-factor model of collective organizational efficacy (M2), as it was found during our explorative factor analysis. The fit of the models is summarized in Table 1.5.

				U					
	$\chi^2$	df	GFI	AGFI	RMSEA	NFI	CFI	$\Delta \chi^2$	Δdf
M1	1122.33	119	.76	.70	.15	.72	.74		
M2	587.64	104	.83	.78	.11	.85	.87	M1-M2 = 534.69	15

Table 1.5. The fit of collective organizational efficacy scale (N = 358)

As showed in Table 1.5 the two-factor model (M2) fits better to data than three-factor model (M1): RMSEA and CFI are closer to conventional values (as Byrne (2009) suggested RMSEA should be smaller than .08 or at least, .10),  $\Delta \chi^2 = 534.69$ , p<0.000. Thus, for the current research we accept two-factor (M2) model of collective organizational efficacy scale of Bohn, but further validation of the scale is required.

For specific collective organizational efficacy scale we ran a factor analysis using a principal-component solution with a varimax rotation. This analysis revealed one factor, as expected, and it was named "organizational efficacy in the internationalization"; factor loadings are shown in Table 1.6.

Statistical Analysis. Table 1.7 shows mean values, standard deviations, and intercorrelations of scales. General and specific collective organizational efficacy dimensions were positively interrelated (mean r = .59), as organizational effectiveness were (mean r = .41). As expected, general collective organizational efficacy was positively related to competing values dimensions (mean r = .48); the strongest correlation was between organizational capacity and planning & goal setting (r = .72). The more positively eight dimensions of organizational effectiveness are evaluated, the higher general collective organizational efficacy is perceived. Specific collective organizational efficacy was positively related to organizational effectiveness (mean r = .47). In particular, the strongest correlations were found between specific collective organizational efficacy and human resource development (r = .56), information management (r = .57), and planning & goal setting (r = .55). The more positively eight criteria of organizational effectiveness are evaluated, the higher efficacy in internationalization is perceived. As interrelations among all dimensions of organizational effectiveness and collective organizational efficacy are rather strong, we can suppose that they refer to the same underlying construct.

Item	Component
This company is able to	1
Adapt products to foreign market	.857
Plan well international development	.852
Sustain international competition	.839
Reply promptly to foreign clients	.825
Establish regular partnership with foreign clients	.819
Staff is able to develop international market with success	.798
Assimilate quickly the foreign qualitative standards	.796
Create good distribution network in each foreign country	.788
Monitor constantly international competitors	.758
Know well competitors in the foreign market	.722
Know well how to carry out customs practices on foreign borders	.707
Obtain financial resources for internationalization	.700
Study well how the product is consumed abroad	.675
Follow production standards requested in foreign countries	.644
Do not have difficulties to organize loading for foreign clients	.598
Eigenvalues	8.72
Percent of variance explained	58.16
Cronbach's alpha	.95

Table 1.6. Items, Factors, Eigenvalues and Variance for specific collective organizational efficacy scale (N = 358)

Competing values dimensions are description of the current or past organizational performance. Dimension organizational future describes employees' beliefs whether their organization has a capacity to endure and even thrive in the future. The items of this dimension are quite unlike any of the items of competing values dimensions. Hence, they could be considered an alternative way of thinking about organizational efficacy: not only how well we perform now, but also the probability that we will perform good in the future. Indeed, linear multiple regression indicated that competing values dimensions predict 35% of variability of employees' beliefs of organizational future (see Table 1.8). Further, dimension organizational capacity correlates rather strong with competing values dimensions (mean r = .58). Substantive analysis of the items constituent this dimension demonstrates that they may align with some of the competing values dimensions (e.g., "People here have a sense of purpose" may be aligned with planning & goal setting; or "This organization can meet customer requirements because the employees are extremely competent" may be aligned with human resource development). These results could be considered

Variable	М	SD	1	2	3	4	5	6	7	8	9	10
1.COHES	4.54	.92										
2.HRD	4.46	.82	.53**									
3.IM	4.28	.89	.40**	.43**								
4.STAB	4.16	1.16	.41**	.43**	.50**							
5.ADAPT	4.05	.90	.51**	.56**	.49**	.35**						
6.GROW	3.83	1.12	.13*	.21**	.15**	.25**	.19**					
7.PLAN	4.08	.96	.44**	.60**	.54**	.51**	.53**	.20**				
8.PROD	4.29	1.12	.45**	.22**	.46**	.57**	.47**	.35**	.59**			
9.CAPAC	4.28	.84	.59**	.63**	.60**	.55**	.67**	.27**	.72**	.58**		
10.FUTURE	5.14	.89	.28**	.41**	.41**	.38**	.41**	.26**	.44**	.49**	.55**	
11. INTERN	4.55	.72	.37**	.56**	.57**	.49**	.48**	.19**	.55**	.51**	.71**	.51**

Table 1.7. Means, Standard Deviations, and Intercorrelations (N = 358)

\*p<.05, \*\*p<.01

as evidence of convergent validity of both instruments and a confirmation, that both instruments measure the same construct.

Variable	В	SE B	ß	<i>t</i> -ratio
	Vigor			
Cohesion	03	.06	04	61
Planning & Goal Setting	.07	.06	.07	1.09
Stability	07	.05	08	-1.34
Growth & Resource Acquisition	08	.05	09	-1.71
Human Resource Development	.11	.06	.12	1.93
Adaptability	.19	.05	.20**	3.73
Productivity	33	.06	36**	-5.54
Information management	.21	.05	.22**	3.79
$R^2 = .35, F = 19.22^{**}$				

Table 1.8. Linear multiple regression of competing values dimensions on organizational future (N = 358)

\*\*p<.001

#### 1.4.4. Discussion

The results of current study confirmed the eight-factor structure of competing values approach. As described above two separate factor analyses, instead of one, were run for it. We suppose that this difficulty is due to some differences in conditions between the current study and Rohrbaugh's study in 1981. He evaluated effectiveness in American companies, operated in the public sector, while we studied European private companies. Certainly, industrial specialization, language, and time, of course, could influence the factor structure of the instrument. In particular, we had difficulty keeping growth, productivity, and informational management as separable factors. We suppose that other items should be developed for these scales, in order that respondents could easier view these three criteria of organizational effectiveness as especially distinct.

The current study did not confirm the three-factor structure of collective organizational efficacy scale of Bohn. The final solution established two factors with higher eigenvalues and variance explained than author had gotten, and Cronbach's alpha values for our scales were higher too. Such results could be explained by some reasons. Firstly, as in case of Rohrbaugh's scale, we suppose that differences in samples can determine also differences in results. Bohn collected data in American companies of different industries – from plastic nag manufactures to cheese producers. Our sample was European and more homogeneous, even if we collected data in large and small companies as Bohn had done. Secondly, in no other studies the scale of Bohn was used, and the current study improved the instrument and the model. Thirdly, we should keep in mind that Bohn derived his instrument from the theory, but broader constructs could be included in the list of

determinant of collective organizational efficacy. This also may be the reason of why confirmatory factor analysis did not fit our data rather well.

We developed and tested the reliability of the specific collective organizational efficacy scale which evaluates beliefs regarding efficacy in internationalization. As expected, one factor emerged with acceptable psychometric results. This result is promising, and we suggest that this scale may be used in future studies to measure collective organizational efficacy regarding international market entry of firms.

The results of current research confirm that organizational effectiveness and collective organizational efficacy are interrelated constructs. Both of them apply to employees' judgement or employees' confidence in organizational capacity to be efficacious. While competing values approach proposes multi-faceted measure which reflects employees' belief about different aspects of organizational performance, collective organizational efficacy measures employees' beliefs concerning the organizational capacity to perform well in general, or in particular situation. Considering this, we suggest that competing values approach could be re-introduced as a framework to study organizational efficacy, and future studies may investigate organizational efficacy.

When we evaluate employees' judgements, we deal just with their beliefs which are not necessary accurate assessments of organizational performance. People usually over- or underestimate their own abilities, which may lead to over- or underestimation of their collective capabilities (Goddard et al., 2004). As we noticed in the introduction, often terms of organizational effectiveness and organizational performance are used as interchangeable. As one might suppose that organizational effectiveness deals with objective assessment of organizational performance, we suggest to use the term of organizational efficacy in research of employees' beliefs to avoid confusion of constructs. Organizational efficacy was always related to subjective evaluations, and competing values approach can become a new way to measure employees' beliefs.

#### **1.5.CONCLUSION**

The current study aimed to investigate the relationship between organizational effectiveness and collective organizational efficacy. Organizational effectiveness was considered from a competing values approach. Our results confirmed the eight-factor structure of competing values instrument. The we continued the investigation of general collective organizational efficacy: we found that two-factor structure fitted better to our data, than three-factor structure, proposed by the Bohn (2010). We also developed a specific scale of collective organizational efficacy regarding the process of internationalization. At last, we found that organizational effectiveness and collective organizational efficacy concern the same issue – employees' beliefs of the organizational performance, hence, we conclude that such beliefs might be successfully studied from both perspectives.

Nevertheless the present results are not exhaustive and further investigation of the constructs is required. Firstly, dimensions of competing values instrument demonstrated low reliability, further studies are necessary to improve it. Secondly, convergent and divergent validity of competing values instrument and general and specific scales of collective organizational efficacy should be examined. Thirdly, the relationship between employees' beliefs of organizational efficacy and other variables (such as work engagement, or leadership styles) should be tested. Finally, the comparison of competing values models and levels of collective organizational efficacy on different stages of organizational life may be effectuated.

## **CHAPTER 2**

# Organizational Efficacy, Collective Work Engagement, and Moderator Effect of Leadership

#### Summary

In the present paper the relationship between organizational efficacy and collective work engagement is explored, and also a moderator effect of leadership style between these two constructs is examined. Organizational efficacy was measured from two perspectives – competing values approach and collective organizational efficacy, using appropriate instruments. The measure of work engagement, UWES-9 (Schaufeli & Bakker, 2003), was adapted in order to measure collective work engagement. The three-factor structure and reliability of adapted UWES-9 were confirmed. Leadership was measured using MLQ (Bass & Avolio, 1995). Statistical analysis revealed that organizational efficacy predicts collective work engagement (vigor, dedication, and absorption). Results confirm the moderator effect of transformational (intellectual stimulation and idealized influence) and contingent reward leadership on relationship between organizational efficacy and collective work engagement.

*Keywords: organizational efficacy, collective work engagement, transformational leadership, contingent reward leadership*
### **2.1. INTRODUCTION**

Markets change very fast: new technologies are introduced, new customers and competitors appear, and new countries enter in the world economy and broaden existent markets. In such competitive and turbulent environment organizations have to survive and to make efforts to prosper. In order to hold their businesses organizations have to be effective and meet the requirements of the external environment. Employees' beliefs of organizational efficacy influence organizational performance and contribute in successful goals accomplishment (Bandura, 1993; Hodges & Carron, 1992). Such collective beliefs of organizational capacities motivate employees to work harder, to resist in the face of obstacles and stress, and to accept challenges.

To perform effectively organizations must inspire employees to work all out, and to apply their talents to their work. Effective organizations have employees committed to organizational mission, dedicated to what they do and psychologically connected to their job; in other words, employees in such organizations are engaged with their work (Bakker & Leiter, 2010). Work engagement has strong impact on individual job performance, clients satisfaction and also on the financial results of organizations (Bakker & Bal, 2010; Salanova, Agut, & Peiro, 2005; Xanthopoulou, Bakker, Demetrouti, & Schaufeli, 2009b).

However, studies on work engagement have been conducted mainly on the individual level, and recently Bakker, Albrecht and Leiter (2011) emphasized the necessity to examine the impacts of work engagement at the collective level.

Another important factor which impacts successful performance of organizations is leadership (Bass, 1998). Transformational leadership is able to raise the importance of organizational goals for followers, to get the followers to transcend their own self-interest on behalf of the organization and to make them to put forward higher-level purposes. Therefore it links to collective efficacy and work engagement (Segers et al., 2010; Walumbwa et al., 2004). Instead, Bakker, Albercht and Leiter (2011) supposed that transactional leadership will not contribute to employees' work engagement because it lacks motivational power. To our knowledge no studies investigated the relationship between transactional leadership and work engagement.

In the present paper we define work engagement and introduce the concept of collective work engagement. We also briefly discuss the research streams of leadership behaviour, and examine closely transformational/transactional theory. Then in the study 1 we put forward the hypotheses of the relationships between organizational efficacy and collective work engagement. In the study 2 we examine the moderator effect of leadership behaviour on relationship between organizational efficacy and collective work engagement.

### 2.2. WORK ENGAGEMENT ON THE INDIVIDUAL AND COLLECTIVE LEVELS

### 2.2.1. Definition of Work Engagement

Work engagement is defined as "a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption" (Schaufeli, et al., 2002). Vigor is characterized by high levels of enthusiasm, willingness to invest effort in one's work, and resilience in face of problems. Dedication is a level of involvement in the work process, inspiration, pride and challenge. Absorption is characterized by concentration on work, full immersion in the work processes whereby time passes quickly.

This construct describes how employees perceive their job in general: for engaged employees the job is something to which is worth to devote time and effort, something significant and meaningful, on which they are fully concentrated. Engaged employees are energetic and self-efficacious, they have willingness to invest their efforts in achievement of organizational goals. They are emotionally attached to the organization, and they desire to work there. They have positive attitudes to work and strongly identify themselves with the organization. They work because it is fun, and not because they have strong inner drive as workaholics have (Gorgievski, Bakker & Schaufeli, 2010). Work engagement is not focused on any particular object, event or behaviour, but should be considered as rather persistent affective-motivational state. Nevertheless, some fluctuation in engagement could be registered: as engagement depends on particular organizational situation (such as workload, control, reward, community, fairness, or values), sometimes employees could be more o less engaged at work (Bakker, Albrecht & Leiter, 2011; Bakker & Bal, 2010).

### 2.2.2. Collective Work Engagement

Work engagement is not only an individual phenomenon, but also occurs in groups. Employees work together to achieve organizational goals. In such collaboration they communicate with each other, transfer their willingness to work, their optimism for organizational future, and influence their colleagues (Bakker et al., 2006). As Kozlowski and Klein (2000) and Gracia et al. (2013) suggested, from interactions, behaviours, and affects can emerge a higher-level phenomena, in this case collective work engagement.

Collective work engagement refers to the judgement of employees about how strong their work group as a whole is involved and concentrated on the work. Vigor reflects interpersonal energy. Dedication characterizes work group's identification to a vision, its commitment to tasks and roles, and persistence when the group deals with challenges. Absorption characterizes a level of collective immersion in work when work group find it difficult to detach itself from its tasks (Richardson & West, 2010). We suppose also that work engagement and collective work

engagement could differ: one may evaluate oneself as highly engaged, but still perceive the whole group as low concentrated and less dedicated to the work. In other words, one can consider oneself as unique engaged person in an organization.

It is clear from the nature of the construct that collective work engagement is based on social interactions. Through these interactions group's members share information and form close relationships. They also combine their knowledge, skills, and abilities. As suggested by Richardson and West (2010), collective work engagement provides an access to a larger knowledge and information, consequently, it manifests particularly in situations of high challenges when only collective resources and shared experience can bring to resolve the current problems.

At present little research is currently available on collective work engagement. Bakker et al. (2006) found that team-level work engagement was related to individuals' engagement. Engaged employees share their positive attitudes and influence their colleagues. Consequently, better positive team climate is created, and work engagement cross over from the group to individuals. Salanova et al. (2003) investigated the relationship between collective work engagement and performance and found out the moderating effect of collective efficacy. Their results confirmed that collective efficacy determines levels of collective work engagement and moderate task performance. Nevertheless, Bakker et al. (2011) noticed that literature on collective work engagement is rather limited, and further research of the construct is necessary.

# 2.2.3. Predictors and Outcomes of Work Engagement

Important predictors of work engagement are job and personal resources (Bakker & Leiter, 2010; Barbier, et al., 2013). Job resources refer to physical, social, and organizational aspects of the job that may stimulate personal growth, reduce job demands, and contribute in achieving work goals. Some examples of job resources are social support from colleagues, autonomy, and opportunity to learn. If employees perceive that their organization supports their activity, involves them, inspires them, and satisfies their psychological needs, then they will likely dedicate their time, energy and talent to the work. On the one hand, job resources play an intrinsic motivational role, because they foster employees' growth, learning, and development (Schaufeli & Bakker, 2004). For example, proper performance feedback fosters learning, thereby increasing job competence. On the other hand, job resources also play an extrinsic motivational role fostering the willingness to dedicate one's efforts and abilities to the job. Performance feedback from one's superior increases the likelihood of being successful in achieving work goals. In any case positive outcomes of job resources occur, and one of them is work engagement. Schaufeli, Bakker & van Rhenen (2009) confirmed a positive relationship between job resources and work engagement: those Dutch

employees whose job resources were increased over a period of 1 year were more engaged than at the beginning of the longitudinal study.

Job resources are most predictive of work engagement under conditions of high job demands. Job demands are those aspects of the work that require particular effort from employee, for example, workload, performance expectations, emotional demands, or role conflicts. In the stress situations people evaluate potential loss of resources (material, social, personal, or energetic) and try to reduce it bringing in resources. This implies that the motivation potential of job resources employees perceive in situations of high job demands. Job resources, as colleagues' support, organizational climate or others, help employees to cope with job demands (Bakker & Demerouti, 2007).

Personal resources, along with job resources, predict work engagement. Personal recourses, or psychological capital, are defined as "an individual's positive psychological state characterized by self-efficacy, optimism, persistence toward goals, and resilience" (Luthans, et al., 2007). Personal resources refer to positive self-evaluations, and they are linked to resiliency, goal achievement, and work-related well-being (as job satisfaction, for instance). Luthans et al. (2005) distinguished three crucial personal resources: self-efficacy, organizational-based self-esteem, and optimism. Mauno, Kinnunen & Ruokolainen (2007) added that organizational-based self-esteem together with job control was the best predictors of work engagement in their study.

Several studies investigated the relationship between work engagement and self-efficacy, as possible personal resource. Chaudhary, Rangnekar & Barua (2012) found that self-efficacy is positively correlated and is a significant predictor of work engagement. Linnenbrink & Pintrich (2003) in their study of students confirmed that self-efficacy promote students' engagement.

Similar to individual self-efficacy, collective efficacy impacts collective work engagement and group task performance (Salanova et al., 2003). To our knowledge, no studies have investigated the relationship between organizational efficacy (in terms of employees' beliefs of how well their organization performs) and collective work engagement. We suppose that if employees believe that their organization is able to take up a challenge, they will be sure that their time and extra efforts will not be wasted; hence, they will have more willingness to apply their capabilities for the organizational benefit. In other words, the stronger people believe about the capacity of their organization to be efficacious, the more they are engaged in the work process.

The results of our previous study suggested two perspectives to evaluation of organizational efficacy: collective organizational efficacy and competing values approach. In the current study we investigate the relationship between organizational efficacy and collective work engagement from both perspectives and we hypothesize that

*H1:* Collective organizational efficacy predicts collective work engagement (vigor, dedication, absorption).

H2: Competing values criteria of organizational efficacy predict collective work engagement (vigor, dedication, absorption).

Work engagement stimulates positive attitudes towards work and towards the organization, such as job satisfaction, organizational commitment, low absenteeism, and low turnover (Salanova et al., 2003; Schaufeli & Bakker, 2004; Schaufeli et al., 2002). Engaged employees are also more likely to improve their work, optimize the work procedures, develop themselves, and increase their professional knowledge (Bakker & Demerouti, 2008). The studies of Xanthopoulou et al. (2007; 2009a) confirmed that engaged employees are highly-efficacious, they believe they are able to sustain any problem, they have positive attribution about now and future and they believe they can satisfy their needs by working for their organization. Moreover, engaged employees are problem focused, taking active steps to overcome problems, and in general use an active coping style (Rothmann & Storm, 2003). Work engagement also has positive impact on job performance that was confirmed in a wide range of studies (Halbesleben & Wheeler, 2008; Kim, Kolb & Kim, 2013; Robertson, Birch & Cooper, 2012; Salanova, Agut & Peiró, 2005; Xanthopoulou et al., 2009b).

To summarize, work engagement could be described with Job Demands-Resources model (JD-R) (Bakker & Demerouti, 2007; 2008). According to this model, job and personal resources predict work engagement. They particularly have a positive impact on work engagement when job demands are high. Work engagement, in turn, has a positive impact on job performance. Engaged employees who perform well begin to create their own resources, which then foster engagement again over time (Hakanen, Schaufeli & Ahola, 2008; de Beer, Rothmann & Pienaar, 2012).

### 2.2.4. Instruments to Measure Work Engagement

Work engagement is the assumed opposite of burnout, and together these concepts constitute opposite poles of work related well-being: burnout represents a negative pole and engagement represents a positive one (Maslach & Leiter, 1997). Maslach & Leiter (1997) characterized burnout by exhaustion, cynicism and reduced professional efficacy, when work engagement was characterized by energy, involvement and efficacy. Maslach Burnout Inventory (MBI) measures burnout on these three dimensions and implies that their low scores indicate work engagement. An alternative instrument for the assessment of work engagement is the Oldenburg Burnout Inventory (OLBI) (Demerouti & Bakker, 2008). Work engagement is assessed by recoding negatively phrased items of burnout. The OLBI includes two dimensions – from exhaustion to vigor and from cynicism

to dedication. Both approaches assume that work engagement and burnout are negatively correlated. But if an employee is not burned-out it does not necessary mean that he is engaged, and vice versa. Therefore Schaufeli & Bakker (2003) distinguished burnout and work engagement and suggested to measure them independently.

For this scope they developed Utrecht Work Engagement Scale (UWES), which was derived from definition of work engagement and included three subscales - vigor, dedication, and absorption (Schaufeli & Bakker, 2003). Vigor is assessed by items that refer to high levels of energy, the willingness to invest effort, and resilience in the face of difficulties. Dedication is assessed by items that refer to feeling inspired, enthusiastic and proud about one's job. Absorption is assessed by items that refer to being immersed in one's work so that time passes quickly. However, some evidence suggests that absorption should be considered as a consequence of work engagement (Salanova et al., 2003). The initial UWES consisted of 17 items, but later Schaufeli et al. (2006) developed a shortened version of the UWES consisting of 9 items. The three-factor structure of the UWES-17 and UWES-9 was confirmed in several studies (Mills, Culbertson, & Fullagar, 2012), including cross-cultural studies in Spain, The Netherlands and Portugal (Schaufeli et al., 2002; Extremera et al., 2012), China (Yi-Wen & Yi-Qun, 2005), South Africa (Storm & Rothmann, 2003), Israel (Littman-Ovadia & Balducci, 2013), Italy (Balducci, Fraccaroli & Schaufeli, 2010), Norway (Nerstad, Richardsen & Martinussen, 2010). The internal consistencies of the three subscales and of the whole instrument typically range between .80 and .90 (Schaufeli, Bakker & Salanova, 2006) in most of the studies, thus the UWES is considered as a reliable instrument to measure work engagement and is extensively used in studies.

As there are few studies of collective work engagement, no special instrument to measure collective work engagement was developed. For example, in their study of team level engagement Bakker et al. (2006) used the standard UWES-17 (Schaufeli & Bakker, 2003), and, in order to compute work engagement at team level, calculated the percentage of engaged employees per team. In other words, team-level scores of engagement were computed at the aggregate level. Instead, we suppose that collective work engagement is not a sum of individuals' engagement, but a group-level attribute which represent employees' beliefs of: how much effort they can dedicate to their work as a group; whether as a group they are able to take up a challenge; whether their group is immersed in the work process. Therefore it is necessary to assess work engagement on the collective level using dedicated instrument.

### 2.3. LEADERSHIP STYLE

### 2.3.1. Theoretical Trends of Leadership Theory

Dinh et al. (2014) distinguished groups of leadership theories published in top-tier journals in 2000 - 2012. The most popular theories in the last decade were: team leadership (frequency 112), leader-member exchange (LMX) (frequency 115), trait theories (frequency 117), and transactional/transformational leadership (frequency 189).

Team leadership theories focus on the role of leadership in organizational groups or work teams. Such theories make an attempt to determine the appropriate functions of leadership which improve team performance (Zaccaro et al., 2002). Team leadership theories consider leadership on the collective level, because team leaders must focus on the team as a whole instead of simply focusing on individual relationships, and they need to implement behaviours which impact team-level states and processes. Thus the aim of team leaders is to ensure successful team outcomes and team goal attainment (Morgeson et al., 2010).

LMX theories conceptualize leadership as an interaction between leaders and followers. Leaders create dyadic relationships with their subordinates; such relationships could be both of transactional character (focus mainly on contractual agreements) and of transformational character (emphasize trust and respect) (Shuffler et al., 2013). Clearly, the high quality of leader-member exchanges is related to positive organizational outcomes, as less turnover, organizational commitment, positive job attitudes, and job satisfaction (Graen & Uhl-Bien, 1995).

Trait theories focus exclusively on the leaders, and not on the followers or the situation. In particular, they concentrate on determining specific traits that clearly differentiated leaders from followers (Northouse, 1997). Usually such traits are related to demographics (e.g., gender, age, education), task competence (e.g., intelligence, self-confidence), or interpersonal attributes (as sociability and extraversion) which are considered predictors of leadership effectiveness (Derue et. al., 2011). Obviously, it is impossible to present a definitive list of leadership traits.

The focus of many studies in the last decade was transactional/transformational leadership approach. This approach gives more attention to followers' rather than leaders' needs and links leadership effectiveness with transformational type of leadership. Transformational leadership is concerned with the performance of followers and with development of their fullest potential, and describes leaders which are able to change, or "transform", the followers (Burns, 1978). It got high attention from leadership researchers because transformational leadership could describe a wide range of leadership from influence followers on the individual level to influence whole organizations or even cultures (Bass, 1999).

The transactional/transformational paradigm, being independent conceptually, is correlated with other leadership approaches described above (Bass, 1999). Members of transformational teams take care, intellectual stimulate and inspire each other, identify themselves with team's goals, and demonstrate high performance. Dyadic relationship between leader and follower can also be found in transactional/transformational behaviour, as in LMX. When trust, loyalty and respect of follower to leader develop, LMX is transactional. When these states are reached, LMX becomes transformational. The components of transactional/transformational leadership can be treated as personality traits, even if it is possible to develop transformational components of leadership behaviour (Bass & Avolio, 1990).

Many leadership approaches focus primarily on leaders' characteristic, and do not pay attention to followers' needs. They concentrate only on the transactional process: how leaders exchange rewards for achieved goals. Transactional/transformational paradigm incorporates both followers and leaders (Yukl & Van Fleet, 1992). It provides more comprehensive explanation of leadership phenomena that includes also leaders' attention to the needs and growth of followers; for this reason this paradigm was called the full-range leadership theory (Antonakis, Avolio & Sivasubramaniam, 2003). For these reasons further we concentrate on this paradigm of leadership and discuss measures and implications of transformational leadership.

### 2.3.2. Transformational and Transactional Leadership

Bass (1985) provided a model of transformational leadership distinguishing first of all between transformational and transactional leadership. Transactional leadership focuses on the exchanges between leaders and their followers. This type of leadership occurs when a leader rewards or disciplines followers depending on the adequacy of followers' performance. Transformational leadership refers to the process of engagement, motivation and reinforcement of morality in both the leader and the followers. Transformational leadership pays much attention to followers' needs, motives, and emotions. Bass (1985) argues that transformational leadership motivates followers to do more than it was expected by raising their levels of consciousness about the importance and value of organizational goals, by getting followers to transcend their own selfinterests on behalf of the organization, and by making followers to put forward higher-level purposes.

Bass's model of transformational leadership described transactional and transformational leadership as a single continuum (Northouse, 1997), where transformational leadership is the most effective type of leadership behaviour, laissez-faire leadership is ineffective non-leadership behaviour, and transactional leadership may have both effective and ineffective impacts (see Figure 2.1). Below we consider each component of leadership from Bass's model.



Transactional Leadership Contingent Transactional Leadership Active Managementby-Exception Transactional Leadership Passive Managementby-Exception

**Non-**Leadership Laissez-Faire

Figure 2.1. Leadership Continuum (adapted from Northouse, 1997).

*Components of Transformational Leadership* (Bass, 1998). a) Idealized Influence. Leader is a role model for followers. He is admired, respected, and trusted. Followers identify with the leader and want to emulate him. This leader transmits followers a vision and a sense of mission. b) Inspirational Motivation. Leader motivates and inspires followers. Team spirit is enhanced by this type of leadership behaviour. Enthusiasm and optimism are displayed. c) Intellectual Stimulation. Leader stimulates followers to be creative and innovative; he encourages usage of new approaches to old situations. If followers' ideas are different from leader's ideas, they will not be criticized. d) Individualized Consideration. Leader considers individual needs of followers, coaches them, gives advises and assists them to become full actualized at work. This leader often delegates in order to promote followers' growth.

*Components of Transactional Leadership* (Bass, 1998). a) Contingent Reward. It refers to an exchange between leader and follower: leader assigns what need to be done and promises rewards in exchange of satisfactorily carrying out the assignment. This type of leadership is rather effective, although not as much as any of the components of transformational leadership. b) Management-by-Exception. This type of leadership involves criticism, negative feedback, and negative reinforcement. Active management-by-exception is manifested when leader watches followers' actions, finds mistakes or rules violations and then takes corrective action. Passive management-by-exception is manifested when leader intervenes only after problems have arisen.

*Non-Leadership* (Bass, 1998). Laiser-Faire Leadership. This factor diverges from transactional leadership and referring to the absence of leadership. In substance there is no transaction between leader and followers. Such leader delays decisions, gives no feedback, makes no attempt to assist followers' growth and satisfy their needs. This is the most inactive and ineffective type.

Although we have described the components of transformational and transactional leadership as distinct, they may be displayed by the same leader. This evidences that transformational leadership does not substitute for transactional leadership, but it builds on it (Bass & Avolio, 1990). Transformational leadership augments leader's effectiveness and followers' effort and performance, so the best leaders are both transformational and transactional (Bass, 1999).

## 2.3.3. Multifactor Leadership Questionnaire

Each of the components of transactional/transformational paradigm can be measured with the Multifactor Leadership Questionnaire (MLQ) (Bass & Avolio, 1995). The questions of the MLQ describe followers' perceptions of a leader's behaviour for each component of transformational and transactional leadership model. The results determine the leader's particular strengths and weaknesses in transformational leadership. Antonakis, Avolio and Sivasubramaniam (2003) provided a validation of the nine dimensions corresponding to each of the components of transactional/transformational paradigm. Bass and Avolio (1995) noticed that there are high positive correlations among five transformational leadership dimensions, but also contingent reward positively and significantly correlates with each of five dimensions of transformational leadership. Such high correlations are expected because contingent reward builds trust, dependability, and perceptions of consistency with leaders by followers, which are each a basis for transformational leadership. Management-by-exception is usually low positively or negatively correlates with the transformational leadership and contingent reward.

MLQ is considered as valid and reliable instrument to measure leadership components. It was widely applied in different studies, including cross-cultural (Alonso, Saboya and Guirado (2010) in Spain, Felfe (2006) in Germany, Boyraz, Lightsey and Can (2013) in Turkey, den Hartog, Van Muijen and Koopman (1994) in Netherlands). Therefore in the study 2 we concentrate on this paradigm and use the MLQ to measure leadership components and to test hypotheses.

## 2.3.4. Organizational Outcomes of Transformational and Transactional Leadership

Transformational leaders are more effective than transactional leaders (Bass, 1985; 1998). Transformational leaders increase the confidence of followers and their awareness of key issues for the team and organization. Previous studies demonstrated that transformational leadership was significantly and positively related to non-financial performance (e.g., customer satisfaction), higher followers' satisfaction, psychological well-being of followers and commitment (Arnold et al., 2007; Avolio et al., 2004; Erkutlu, 2008; Lowe, Kroeck & Sivasubramaniam, 1996; Patiar & Mia, 2009). Hater and Bass (1988) confirmed high positive correlations between transformational leadership components and work team performance: transformational leadership style of both top performers and ordinary managers significantly correlated with high performance of their work teams, while between transactional leadership style and team work performance was not found any significant relation.

Chun et al. (2009) stated that leadership is multiple-level phenomenon. It occurs not only between leaders and followers, but also between leaders and teams, and even organizations (Bass, 1999). Consequently, transformational leaders influence not only single individuals, but also groups

and organizations. Transformational leaders are able to enhance team spirit and transform groups' mission, values, and goals, influencing positively work group processes. Empirical studies demonstrated that transformational leadership predicts collective efficacy (Arnold, Barling & Kelloway, 2001; Bradford, 2011; Dussault, Payette & Leroux, 2008; Muchiri, Cooksey & Walumbwa, 2012), and collective efficacy beliefs have a mediating effect between transformational leadership and commitment (Ross & Gray, 2006; Walumbwa et al., 2004) and self-efficacy beliefs (Kurt, Duyar & Çalik, 2011).

Bakker, Albrecht and Leiter (2011) wrote that "an employee who receives support, inspiration, and quality coaching from the supervisor is likely to experience work as more challenging, involving, and satisfying, and, consequently, to become highly engaged with the job tasks" (p. 13). Several studies confirmed positive interrelations between transformational leadership and work engagement. For example, in the study of Kovjanic, Schuh and Jonas (2013) the correlation coefficient between transformational leadership and work engagement was r = .65, p<.05. In the study of Ghadi, Fernando and Caputi (2013) the correlation coefficient for these variables was r = .69, p<.01. Consequently, we suppose that

H3: Transformational leadership (intellectual stimulation and idealized influence) is positively related to collective work engagement.

Contingent reward is considered as effective type of transactional leadership (Bass, 1998). Avolio, Waldman and Eistein (1988) demonstrated significant positive relationships between contingent reward, transformational leadership and financial team performance. Walumbwa, Wu and Orwa (2008) in the study of bank employees found that contingent reward leader behaviour has a positive impact of followers' satisfaction and levels of organizational commitment mediated by justice climate perception and strength. Meta-analysis of Judge and Piccolo (2004) showed that in business and military organizations, where norms for rational rewarding are higher, contingent reward leadership tends to be more effective. Our sample consists of only business organizations, therefore we hypothesize that

H4: Contingent reward is positively related to collective work engagement.

# 2.4. STUDY 1

The aim of the study 1 is to investigate factorial validity of collective work engagement scale and investigate the relationship between collective work engagement and organizational efficacy.

# 2.4.1. Method

Sample and Procedure. Sample and procedure of this study were the same as described in Chapter 1.

Instruments. The questionnaire was composed of the following scales:

- 1. 20-items scale of competing values (adapted from Rohrbaugh, 1981), including:
  - a) Cohesion, Morale (3 items; e.g. "Co-workers trust each other"). Cronbach's alpha = .77.
  - b) Human Resource Development (3 items; e.g. "Employees possess skills adequate to their assignments"). Cronbach's alpha = .71.
  - c) Information Management (2 items; e.g. "This organization has made good use of MIS (management information system) technology"). Cronbach's alpha = .50.
  - d) Stability, Control (2 items; e.g. "This organization often seems chaotic."). Cronbach's alpha = .69.
  - e) Flexibility, Adaptability (3 items; e.g. "Staff members are flexible enough to take on new and different responsibilities"). Cronbach's alpha = .71.
  - f) Growth, Resource Acquisition (2 items; e.g. "Acquiring new financial resources has been a problem for us recently"). Cronbach's alpha = .31.
  - g) Planning, Goal Setting (3 items; e.g. "This organization has work objectives that are well defined."). Cronbach's alpha = .73.
  - h) Productivity, Efficiency (2 items; e.g. "This organization is not very productive"). Cronbach's alpha = .63.

Respondents indicated their agreement with each statement, using a 6-point Likert scale (1 = "Strongly disagree", 6 = "Strongly agree"). Internal consistency (Cronbach's alpha) for entire scale was .90. As the Cronbach's alpha for entire scale got high value, we made a decision to keep all scales, even if some of them did not demonstrate high reliability.

- 2. 16-items scale of general collective organizational efficacy (adapted from Bohn, 2010), including:
  - a) Organizational capacity (11 items; e.g. "This organization is far more innovative that most organizations"). Cronbach's alpha = .93.

b) Organizational future (5 items; e.g. "This organization is confident about its future"). Cronbach's alpha = .89.

Respondents indicated their agreement with each statement, using a 6-point Likert scale (1 = "Strongly disagree", 6 = "Strongly agree"). Internal consistency (Cronbach's alpha) for entire scale was .93.

- 3. 15-items scale of specific collective organizational efficacy regarding the process of internationalization (e.g. "This company is able to adapt well its products to requests of foreign market"). Respondents indicated their agreement with each statement, using a 6-point Likert scale (1 = "Strongly disagree", 6 = "Strongly agree"). Internal consistency (Cronbach's alpha) was .95.
- 4. 8-items of Utrecht Work Engagement Scale (UWES) adapted shorten version from Schaufeli & Bakker (2003). Following Salanova et al. (2003) all items were reformulated in order to adapt them on the collective level, for instance, "I am immersed in my work" was changed to "Individuals in this organization are immersed in their work". The item "When I get up in the morning, I feel like going to work" from the scale vigor was eliminated because could not be adapted on the collective level. This scale included:
  - a) Vigor (2 items; e.g. "Individuals in this organization feel bursting with energy at their work"). Cronbach's alpha = .87.
  - b) Dedication (3 items; e.g. "Individuals in this organization are enthusiastic about their job"). Cronbach's alpha = .89.
  - c) Absorption (3 items; e.g. "Individuals in this organization are immersed in their work"). Cronbach's alpha = .79.

Respondents indicated their agreement with each statement, using a 7-point Likert scale (0 = "Never", 6 = "Always, every day"). Internal consistency (Cronbach's alpha) for entire scale was .93.

Items were randomized to minimise response set.

*Measurement Issues.* In spite of all scales refer to an organization rather than to a single individual, we do not aggregate data on the organizational level. As stated Bandura (2000), "it is people acting coordinatively on a shared belief, not a disembodied group mind that is doing cognizing, aspiring, motivating, and regulating" (p. 76). Therefore we consider such approach as appropriate because in the current research we investigate individual beliefs of collective constructs – how well an organization is able to perform (organizational efficacy) and how strong employees of a given organization are involved in their work (collective work engagement).

Such approach was used in previous studies of collective efficacy and collective work engagement. For example, Borgogni et el. (2009) assessed organizational collective efficacy measuring respondents' beliefs that the city hall as a whole is able to cope effectively with their daily routines. All items of the group collective efficacy scale referred to a group perspective and were formulated as statements of individuals responding to issues related to the team. As concerns collective work engagement, Salanova et al. (2003) measured it at the individual level adapting the standard UWES at work group level and reformulating the items. All statistics reported in their work were run on the sample of 140 students and scores were not aggregated for 18 groups.

Fit Indices. We used Structural Equation Modelling (SEM), implemented by the AMOS program (Arbuckle, 1997), for data analyses. Maximum-likelihood estimation methods were used, and the goodness of fit of the models was evaluated using the following indices: (a) the chi-square goodness-of-fit statistic, (b) the goodness-of-fit index (GFI), (c) the adjusted goodness-of-fit index (AGFI), (d) the root-mean-square error of approximation (RMSEA), (e) normed fit index (NFI), (f) the comparative fit index (CFI). RSMEA values of less than .08 were assumed to indicate a good fit between the hypothesized model and the observed data. For the GFI and the AGFI no statistical test or critical value is available (Jöreskog & Sörbom, 1986). For the other fit indices the values greater than .90 were considered as indicating a good fit (Byrne, 2009).

### 2.4.2. Results

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Exploratory and Confirmatory Factor Analyses. As work engagement scale was adapted on the collective level, first, exploratory and then confirmatory factor analyses were run.

We run exploratory factor analyses (principal component analysis, extract eigenvalues over 1, varimax rotation, pairwise deletion) and one-factor solution was found instead of expected threefactor solution. The results are shown in Table 2.1.

Table 2.1. Items, Fac	tors, Eigenvalues and	Variance of collective work	engagement scale ( $N = 35$	8)
	, 8		8.8	

Item	Component
Individuals in this organization are inspired by their job.	.887
Individuals in this organization are enthusiastic about their job	.883
Individuals in this organization feel strong and vigorous at their job.	.871
Individuals in this organization feel happy when they are working intensely	.814
Individuals in this organization are proud on the work that they do	.796
Individuals in this organization feel bursting with energy at their work.	.784
Individuals in this organization are immersed in their work	.747
Individuals in this organization get carried away when they are working	.710
Eigenvalues	5.298
Percent of variance explained	66.22

In order to test whether collective work engagement is a one-dimensional or threedimensional construct we also run confirmatory factor analyses testing two competitive models: (M1) (one dimension: collective work engagement), or (M2) (three dimensions, as it suggested in the original model: vigor, dedication, and absorption). The values for each model are similar to those reported by Schaufeli & Bakker (2003). The three-dimensional model fitted better (see Table 2.2):  $\Delta \chi^2 = 89.2$ , p<0.000, but the one-dimensional model has also acceptable fit: NFI was very close to conventional value .90, CFI met the conventional value .90. In both tested models RMSEA did not meet the criterion .08 but in studies higher values are usually observed (Byrne, 2009).

					8.8	(		- /	
	$\chi^2$	df	GFI	AGFI	RMSEA	NFI	CFI	$\Delta \chi^2$	Δdf
M1	238.69	20	.86	.75	.18	.89	.90		
M2	149.49	17	.91	.81	.15	.93	.94	M1-M2 = 89.2	3

Table 2.2. The fit of collective work engagement scale (N = 358)

As the Cronbach's alphas for three dimensions of collective work engagement and for the entire scale were high, we accept the adaptation of the scale at the collective level. Consistent with the results of Schaufeli & Bakker (2003) the one-factor solution fitted the data rather well, and Cronbach's alpha got the reliable value for the entire scale. As the authors suggested, it is acceptable to use the total score of collective work engagement for the shortened version. Nevertheless, the superior fit of the three-dimensional model supports the existence of three subscales. As in the current study we are interested in different dimensions of work engagement, we may use the three-dimensional instrument (Schaufeli & Bakker, 2003).

# Descriptive Statistics.

Table 2.3 shows mean values, standard deviations, and intercorrelations of scales. Competing values dimensions were positively interrelated (mean r = .41), as general and specific collective organizational efficacy dimensions were (mean r = .59). Collective work engagement scales were positively interrelated too (mean r = .74). Also they were positively correlated with efficacy in internationalization and collective organizational efficacy (mean r = .43). Moreover, collective work engagement scales were significant positively correlated with competing values dimensions (mean r = .37).

*Testing Hypotheses.* In order to test hypotheses we performed linear multiple regressions using as predictors of collective work engagement two dimensions of general collective organizational efficacy, one dimension of specific organizational efficacy in internationalization, and eight dimensions of competing values. Eight dimensions of competing values were calculated on the base of factor scores, as it was suggested by Rohrbaugh (1981).

Variable	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13
1.COHES	4.54	.92													
2.HRD	4.46	.82	.53**												
3.IM	4.28	.89	.40**	.43**											
4.STAB	4.16	1.16	.41**	.43**	.50**										
5.ADAPT	4.05	.90	.51**	.56**	.49**	.35**									
6.GROW	3.83	1.12	.13*	.21**	.15**	.25**	.19**								
7.PLAN	4.08	.96	.44**	.60**	.54**	.51**	.53**	.20**							
8.PROD	4.29	1.12	.45**	.22**	.46**	.57**	.47**	.35**	.59**						
9.CAPAC	4.28	.84	.59**	.63**	.60**	.55**	.67**	.27**	.72**	.58**					
10.FUTURE	5.14	.89	.28**	.41**	.41**	.38**	.41**	.26**	.44**	.49**	.55**				
11. INTERN	4.55	.72	.37**	.56**	.57**	.49**	.48**	.19**	.55**	.51**	.71**	.51**			
12. VIGOR	3.88	1.44	.31**	.25**	.37**	.24**	.36**	.18**	.37**	.43**	.42**	.33**	.31**		
13. DEDICATION	3.99	1.37	.42**	.39**	.43**	.34**	.49**	.28**	.48**	.53**	.57**	.43**	.47**	.76**	
14. ABSORPTION	3.81	1.35	.33**	.35**	.38**	.24**	.46**	.23**	.44**	.50**	.53**	.40**	.38**	.69**	.76**

Table 2.3. Means, Standard Deviations, and Intercorrelations (N = 358)

\*p<.05, \*\*p<.01

Results show that both general and specific collective organizational efficacy predicts all three dimensions of collective work engagement (see Table 2.4 and 2.5). The predictive power is significant for all independent variables. These results fully confirmed the hypothesis 1.

Variable	В	SE B	ß	<i>t</i> -ratio
	Vigor			
Organizational capacity	.56	.10	.33***	5.45
Organizational future	.25	.10	.16**	2.56
$R^2 = .19, F = 36.84^{***}$				
	Dedication			
Organizational capacity	.80	.09	.48***	8.97
Organizational future	.29	.08	.19***	3.47
$R^2 = .36, F = 87.93^{***}$				
	Absorption			
Organizational capacity	.69	.09	.43***	7.57
Organizational future	.28	.09	.19***	3.31
$R^2 = .31, F = 68.79^{***}$				
***************************************				

Table 2.4. Linear multiple regression of general collective organizational efficacy on three dimensions of collective work engagement (N = 358)

\*\*p<.01,\*\*\*p<.001

Table 2.5. Linear multiple regression of specific collective organizational efficacy on three dimensions of collective work engagement (N = 358)

Variable	В	SE B	ß	<i>t</i> -ratio
	Vigor			
Efficacy in internationalization	.59	.11	.31***	5.58
$R^2 = .10, F = 31.14^{***}$				
Ι	Dedication			
Efficacy in internationalization	.90	.10	.47***	8.97
$R^2 = .22, F = 80.41^{***}$				
A	Absorption			
Efficacy in internationalization	.66	.10	.38***	6.87
$R^2 = .14, F = 47.21$				

\*\*\*p<.001

Table 2.6 shows that cohesion, planning & goal setting, adaptability, productivity, and information management predict all three dimensions of collective work engagement, while growth & resource acquisition has a predictive power only on dedication. These results partly confirm the hypothesis 2. The results of linear regressions also suggest that general collective organizational efficacy predicts collective work engagement better, than competing values

dimensions (predictive power of two dimensions of general collective organizational efficacy is slightly lower than of eight dimensions of competing values).

Variable	В	SE B	ß	<i>t</i> -ratio
N	/igor	•		
Cohesion	.18	.09	.13*	2.04
Planning & Goal Setting	.28	.10	.20**	2.73
Stability	03	.09	02	31
Growth & Resource Acquisition	01	.08	01	17
Human Resource Development	01	.09	01	11
Adaptability	.19	.08	.14*	2.36
Productivity	37	.10	27***	-3.87
Information management	.24	.09	.16**	2.59
$R^2 = .27, F = 13.39^{***}$				
Dec	lication			
Cohesion	.27	.08	.20***	3.60
Planning & Goal Setting	.27	.09	.19***	3.04
Stability	06	.08	05	79
Growth & Resource Acquisition	15	.07	11*	-2.19
Human Resource Development	.13	.08	.09	1.63
Adaptability	.25	.07	.19***	3.62
Productivity	38	.09	27***	-4.45
Information management	.30	.08	.21***	3.82
$R^2 = .44, F = 27.04^{***}$				
Abs	orption			
Cohesion	.17	.08	.13*	2.23
Planning & Goal Setting	.25	.09	.18**	2.70
Stability	.08	.08	.06	1.04
Growth & Resource Acquisition	08	.07	06	-1.23
Human Resource Development	.13	.08	.10	1.61
Adaptability	.26	.07	.20***	3.66
Productivity	44	.09	33***	-5.12
Information management	.24	.08	.17**	2.86
$R^2 = .37, F = 20.48^{***}$				

Table 2.6. Linear multiple regression of competing values on three dimensions of collective work engagement (N = 358)

# 2.4.3. Discussion

The results of the study 1 confirm that collective work engagement is a group level attribute which should be measured on the collective level. The items of UWES-9 (except one) were adapted at the collective level, and the instrument still demonstrates factor structure and reliability similar to the standard UWES-9 usually used at the individual level (Schaufeli & Bakker, 2003).

The relationship between organizational efficacy and collective work engagement was confirmed in a series of linear regressions. Our results confirm that general and specific collective organizational collective efficacy completely predict work engagement (vigor, dedication, and absorption), that is consistent with previous studies conducted at the individual level (Chaudhary, Rangnekar & Barua, 2012; Linnenbrink & Pintrich, 2003). Employees may create positive beliefs of organizational capacity to take up challenges, about future development and growth, or about some specific situations of organizational activity (as international market entry). These positive beliefs reinforce employees' resilience, enthusiasm, and concentration. Hence, they become more engaged in the work process.

We also found that competing values dimensions partly predict collective work engagement: significant predictive power was confirmed for cohesion, goal setting, adaptability, productivity, and information management. If there is a positive climate inside the organization and no conflicts between employees occur, they will demonstrate more willingness to work and engagement in the work process. The systematic planning of future steps and explicit goal setting seem to facilitate employees' concentration on the work process, because they clearly understand where they should go and what for. Efficient and accurate information management provide employees with complete information, critical to the organization; hence, employees can work smoothly and accept more difficult challenges. Probably, effective information management provides to employees sense of their importance for the organization (because management take into consideration and respect them), and they become more engaged in their work. Adaptability and productivity also predict vigor, dedication, and absorption, while growth & resource acquisition predicts only dedication. These three dimensions of competing values refer to organizational capacity to be efficacious in the external environment. If the organization can manage well external changes and demonstrates good production results and improvement in finance indicators, employees will feel enthusiastic to invest their effort on behalf of the organization. If they compare past organizational state and current state and notice the increase in such variables, as total staff, plant capacity, assets, sales, profits, they become proud to work in this organization and more dedicated to work. Probably, a particular impact of growth & resource acquisition on dedication could be explained in this manner. Anyway further studies are necessary to investigate the relationship between collective work engagement and competing values dimensions.

### **STUDY 2**

Study 1 confirmed that organizational efficacy predicts collective work engagement. In particular, such dimensions of collective organizational efficacy scale, as organizational capacity and organizational future had a significant predictive power on all three dimensions of engagement – vigor ( $R^2 = .19$ , F = 36.84, p<.001), dedication ( $R^2 = .36$ , F = 87.93, p<.001), and absorption ( $R^2 = .31$ , F = 68.79, p<.001). As Bass suggested (1998), transformational leadership encourages and inspires employees, and in this way it may reinforce positive employees' perceptions of how well they can perform as a group and how well their organization may perform as a whole. Hence, work group will demonstrate more resilience, enthusiasm, and concentration on the work process. As transformational leadership is able to change employees' beliefs, we suppose that it may enhance the effect of organizational efficacy on collective work engagement.

H5. Transformational leadership moderates the relationship between collective organizational efficacy and collective work engagement.

As we suppose that contingent reward is also correlated with collective work engagement, we hypothesize that

H6. Contingent reward moderates the relationship between collective organizational efficacy and collective work engagement.

To summarize, the aim of the study 2 is to investigate the effect of leadership style on the relationship between organizational efficacy and collective work engagement.

### 2.5.1. Method

Sample and Procedure. Employees of 9 Italian companies of the Food & Beverage Sector (for a total amount of N=86) took part in the study. Data were collected in Italy, and the questionnaire was developed in Italian language. When adapted Italian versions of the scales were not available, the items were translated from English into Italian using back-translation procedure.

There were 41,5% females and 58,5% males respondents, the ages ranged from less than 25 years (5,2%) to 36 - 50 years (50,6%), with the majority between 36 and 50 years. The range in education was from 32,2% secondary school to 28,7% for higher education. Total years in the

company ranged from less than 2 years (11,1%) to more than 10 years (40%) with the majority in the company more than 10 years.

Procedure was the same as described in the Chapter 1.

Instruments. The questionnaire was composed of the following scales:

- 1. 16-items scale of collective organizational efficacy (adapted from Bohn, 2010), including:
  - a) Organizational capacity (11 items; e.g. "This organization is far more innovative that most organizations"). Cronbach's alpha = .93.
  - b) Organizational future (5 items; e.g. "This organization is confident about its future"). Cronbach's alpha = .77.

Internal consistency (Cronbach's alpha) for entire scale was .93.

- 8-items of Utrecht Work Engagement Scale (UWES) adapted shorten version from Schaufeli & Bakker (2003). This scale included:
  - a) Vigor (2 items; e.g. "Individuals in this organization feel bursting with energy at their work"). Cronbach's alpha = .92.
  - b) Dedication (3 items; e.g. "Individuals in this organization are enthusiastic about their job"). Cronbach's alpha = .89.
  - c) Absorption (3 items; e.g. "Individuals in this organization are immersed in their work"). Cronbach's alpha = .71.

Internal consistency (Cronbach's alpha) for entire scale was .90.

According to suggestion of Schaufeli and Bakker (2003) the total score of collective work engagement was used.

- 12-items of Multifactor Leadership Questionnaire (MLQ) (adapted from Bass & Avolio, 1995) included:
  - a) Intellectual stimulation (3 items), transformational leadership component. Cronbach's alpha = .79
  - b) Idealized influence (behaviour) (3 items), transformational leadership component.
    Cronbach's alpha = .78
  - c) Idealized influence (attributed) (3 items), transformational leadership component.Cronbach's alpha = .79
  - d) Contingent reward (3 items), transactional leadership component. Cronbach's alpha = .71

In order to shorten the questionnaire we used only three items from four dimensions of MLQ instead of nine. We do not provide examples of items for this scale because of copyright restrictions. Respondents indicated their agreement with each statement, using

a 5-point Likert scale (0 = "Not at all", 4 = "Frequently, if not always"). Internal consistency (Cronbach's alpha) for entire scale was .92.

MLQ scales scores are based only on ratings by others evaluating a target leader. Items were randomized to minimise response set.

#### 2.5.2. Results

*Descriptive Statistics.* Table 2.7 show mean values, standard deviations, and intercorrelations of scales. All dimensions of transformational leadership were positively correlated with collective work engagement (mean r = .46) that confirms the hypothesis 3. As expected there was also positive significant correlation between contingent reward and collective work engagement (r = .51); hence, the hypothesis 4 was also confirmed. The dimensions of transformational leadership were also positively correlated with organizational capacity (mean r = .47) and organizational future (mean r = .44), and also contingent reward was positively correlated with them (r = .48 for organizational capacity and r = .35 for organizational future).

,		,						
Variable	Μ	SD	1	2	3	4	5	6
1.CAPAC	4.28	.84						
2.FUTURE	5.14	.89	.55**					
3.WORK ENG	3.89	1.26	.57**	.43**				
4.INTEL STIM	2.90	.82	.52**	.42**	.47**			
5.IDEAL INF B	3.15	.87	.47**	.41**	.43**	.73**		
6.IDEAL INF A	3.00	.88	.43**	.50**	.47**	.72**	.64**	
7.CONT REW	2.91	.85	.48**	.35**	.51**	.77**	.76**	.67**
**** < 01								

Table 2.7. Means, Standard Deviations, and Intercorrelations (N = 86)

\*\*p<.01

In order to test the hypothesis 5 we used multiple regression as suggested by Frizer, Tix and Barron (2004). We used a total score of collective work engagement as a dependent variable, and collective organizational efficacy and transformational leadership as predictors. We used an average of intellectual stimulation and idealized influence (attributed and behaviour) as a score of transformational leadership. This is consistent with previous studies (e.g., Avolio, Waldman & Eistein, 1988), with suggestions of Bass (1998) and results of Antonakis, Avolio and Sivasubramaniam (2003) which demonstrated that dimensions of MLQ are highly correlated and reflect the high order constructs of transactional/transformational leadership. Hence, we run two multiple regressions for each scale of collective organizational efficacy (organizational capacity and organizational future) separately.

In Table 2.8 a result of regression of collective work engagement on organizational capacity and transformational leadership is presented. The unstandardized

regression coefficient for the interaction term is .38 (p = .008). The  $R^2$  change associated with the interaction term is .04, the F change is significant at p<.01. In other words, the interaction between organizational capacity and transformational leadership explaines an additional 4% of the variance in the collective work engagement scores over and above 40% explained by the first-order effects of organizational capacity and transformational leadership alone.

In order to understand the form of the interaction we plotted our results using an instrument of Dawson (2014). As it showed in Figure 2.2, in case of low organizational capacity high transformational leadership moderately enhances collective work engagement. In case of high organizational capacity high transformational leadership enhances collective work engagement especially strong.

Regression of collective work engagement on organizational future and transformational leadership did not demonstrate any moderator effect (unstandardized regression coefficient for the interaction term is .11 (p = .44)).

Table 2.8. Testing moderator effect: organizational capacity and transformational leadership (N = 86).

Step and variable	В	SE B	ß	$R^2$
Step 1				
CAPAC	.61	.12	.41****	
TRANSFOR	.56	.12	.38****	.40****
Step 2				
CAPAC X TRANSFOR	.38	.14	1.54**	.44****

\*\*p<.01, \*\*\*\*p<.000



Figure 2.2. Plot of interaction between organizational capacity and transformational leadership

In order to test hypothesis 6, firstly, we regressed collective work engagement on organizational capacity and contingent reward. The result is showed in Table 2.9. The unstandardized regression coefficient for the interaction term is .30 (p = .018). The  $R^2$  change associated with the interaction term is .02, the F change is significant at p<.05. In other words, the interaction between organizational capacity and contingent reward explaines an additional 2% of the variance in the collective work engagement scores over and above 41% explained by the first-order effects of organizational capacity and contingent reward alone. In order to understand the form of the interaction we again plotted our results using an instrument of Dawson (2014). As it showed in Figure 2.3, in case of low organizational capacity high contingent reward enhances collective work engagement. In case of high organizational capacity high contingent reward enhances collective work engagement especially strong.

Table 2.9. Testing moderator effect: organizational capacity and contingent reward (N = 86).

Step and variable	В	SE B	ß	$R^2$
Step 1				
CAPAC	.62	.12	.42**	
CONT REW	.47	.11	.33**	.41**
Step 2				
CAPAC X CONT REW	.30	.13	1.28*	.43*



\*p<.05, \*\*p<.001

Figure 2.3. Plot of interaction between organizational capacity and contingent reward

Secondly, we regressed collective work engagement on organizational future and contingent reward. This regression did not demonstrate moderator effect (unstandardized regression coefficient for the interaction term is -.01 (p = .91).

### 2.5.3. Discussion

Consistent with studies of individual work engagement (Ghadi et el., 2013; Kovjanic et al., 2013; Tims et al., 2011), we found a positive association between transformational leadership and collective work engagement. Bakker, Albrecht and Leiter (2011) stated that transactional leadership lacks motivational power and inspirational appeal, and it will unlikely contribute to employees' work engagement. However, our findings suggest that the most effective component of transactional leadership, contingent reward, is also positively related to collective work engagement. Contingent reward leader assigns what need to be done, clarify roles and objectives, and promises rewards that significantly facilitate work goals accomplishment. In this case contingent reward may be considered as a kind of job resources which foster employees' achievements. If employees perceive that their leader is not indifferent for what they do, if he promises appropriate rewards, probably, they will perceive more collective work engagement.

In the study 2 we also investigated how collective organizational efficacy may influence collective work engagement by demonstrating a moderator effect of leadership. Tims, Bakker and Xanthopoulou (2011) found that transformational leadership fosters individual work engagement of employees. The findings of our study suggest that transformational leadership enhances the impact of organizational capacity on collective work engagement. When employees perceive leader's determination and inspiration, the positive mood and optimism will spread among group's members, and, even if employees perceive low organizational capacity to be efficacious, they will be more motivated to dedicate their extra effort and to apply their extra capacities.

Also the exchange between leader and followers in terms of rewards/penalty may reinforce followers' willingness to dedicate their extra effort on behalf of the organization. We suppose that a possible reward for goal accomplishment plays a role of a motivational stimulus (a kind of job resource).

## **2.6. CONCLUSION**

Work engagement is an important indicator of well-being of employees and organizations. Human resource managers should facilitate work engagement on individual and collective levels. In the present study a measure of collective work engagement was proposed. Using this instrument it becomes possible to evaluate level of collective engagement in an organization.

Literature suggests that on the individual level work engagement is linked to such psychological constructs, as job satisfaction, organizational commitment, self-efficacy (Salanova et al., 2003; Schaufeli et al., 2002; Chaudhary, Rangnekar & Barua, 2012; Linnenbrink & Pintrich, 2003). The results of the present study suggested that at the collective level work engagement is predicted by organizational efficacy. Employees who are confident in the organizational capacities to grow and develop, to be efficacious and to manage effectively new situations (as, for example, in the current study international market entry) will be more engaged in the work process.

Richardson and West (2010) suggested that transformational leadership reinforces collective work engagement, and the findings of our study confirmed their supposal. Transformational leadership enhances the effect of beliefs of collective organizational efficacy on collective work engagement. We found also that contingent reward may enhance this effect, and this finding confirms that contingent reward sometimes may be rather effective leadership style (Bass, 1998).

# **CHAPTER 3**

# Internationalization of Firms: Differences in Organizational Efficacy and Collective Work Engagement

# Summary

This study focuses on organizational efficacy and collective work engagement of internationalized companies. Thirteen Italian companies participated in this study. They were divided in three groups, according to their stage of internationalization: export via independent agents, presence of an export department, and production abroad. Organizational efficacy and collective work engagement were measured at the organizational level, and individual scores were aggregated. Significant differences between companies were found for organizational efficacy, and no differences were found in collective work engagement.

Keywords: internationalization, organizational efficacy, collective work engagement

### **3.1. INTRODUCTION**

Nowadays the market becomes global, and organizations have to extend their activity into foreign markets. Only in 2010 about a third of European firms internationalized (Commissione europea, 2010). In spite of the high percentage of firms with an international activity, international market entry is not an easy process: it gets involved considerable part of organizational resources. The organization has to employ new personnel, to change its structure, to introduce innovations in the production process; also the organization acquires new competitors, suppliers, and customers. To manage these changes and to survive in the changing environment organizational performance need to be effective.

Organizational performance is determined not only by financial factors, but also by some psychological ones, as, for example, employees' beliefs of organizational efficacy, or collective work engagement (Bakker & Leiter, 2010; Bandura, 1997). Employees with positive beliefs of organizational capacity to be efficacious are more motivated to work on behalf of the organization, they demonstrate more resilience in face of obstacles, and they set more difficult goals. Engaged employees have willingness to invest their extra effort, and they are ready to take up challenges. These factors are very important when company finds itself in the turbulent environment of international market.

In order to be sure that the company will be able to catch opportunities on the international market, management need to evaluate not only financial indicators, but also psychological factors which may influence organizational performance. In the present study we briefly present theoretical framework for study of internationalization process, and then we discuss the results of our comparison of organizational efficacy and collective work engagement among companies on different stages of internationalization.

# **3.2. THE PROCESS OF INTERNATIONALIZATION**

Internationalization is a process of international market development whereby organizations extend their activity into and within foreign markets and establish relations with other organizations on those markets (Holden, 1997). Internationalization becomes more diffused and promising strategy of organizational development because it influences positively employment and firm's growth, maximizes returns, and positively correlates with competitiveness of firms. In other words, it results in a general strategic development of firms (Caroli & Lipparini, 2002). In

order to present the framework of study of internationalization we consider below the following issues: (a) why firms decide to internationalize; (b) how internationalization occurs; (c) which factors determine the process.

Firms may perceive different advantages of internationalization, and on the basis of evaluating these advantages a decision to internationalize is taken. Market development, necessity to produce goods at a lower cost or to find new consumers, unexpected orders from other countries and a wide range of external stimuli, as reductions in tariffs, favourable regulations in foreign markets, government export assistance programs, are able induce firms to go abroad. Often decisions to enter in international market are also guided by unobserved attitudes, which decision-makers may have towards an international activity in general; for example, personal positive attitudes of top management towards exporting, or encouragement from other companies which has already operated abroad (especially, if they have operated successfully) (Onkelinx & Sleuwaegen, 2009).

Johanson and Wiedersheim-Paul (1975) proposed an evolutionary concept of international development of firms. According to this concept, from no export activity firms implement gradual expansion of the operations abroad:

- Export via independent representatives (agents). On the first stage of internationalization companies do not have certainty about their future on the international market. Therefore they do not hire specialists for export, but resort to the help of independent agents. Such agents act as mediators between company and foreign clients. Companies make first acquaintance of foreign markets, but all market information comes through an agent.
- Sales department. When a company acquires e certain degree of knowledge about foreign market and plans future steps on it, usually a decision to establish sales department is made. With establishment of sales department companies begin to act independently and acquire direct experience from the market. They also have a possibility to control information from it.
- Production abroad. When companies possess large resource commitment to the foreign market, they are able to organize and manage production abroad.

On each of these stages firms obtain experience and acquire larger resource commitment. Increasing firm's export involvement is accompanied by specific changes in organizational, managerial, and attitudinal characteristics (Burton & Schlegelmich, 1987). On the first stage of internationalization a firm does not give much priority to export and consider export to be hazardous. The organizational structure is hardly adapted to the fact that the firm exports. Because these firms do not have an export department or an export manager, little effort is made to plan the export activity (Bijmolt & Zwart, 1994). On the second stage of internationalization firms modify their organizational structure by establishing an export department or engaging an export manager. Export has a high priority for the firm, and it is not seen anymore as more risky than selling on the domestic market. These firms plan their business, research foreign market, and adjust themselves to foreign standards. On the third stage of internationalization firms choose the most promising foreign market and establish there a production plant. They give high priority to export activity, and try to coordinate well strategy and actions between headquarter and foreign office.

Kirpalani and Macintosh (1980) found that when considering situational, marketing, products, manufacturing, and organizational variables, the last variable organizational factors, is the most critical for successful internationalization. Effective information management, commitment and effort of top management, degree of structuring, maturity of export department and the quality of staff in it are associated with success in internationalization. In the initial stage of internationalization human resources are particularly critical: people involved in export activity need to have a sufficient background in such areas as foreign work experience, education and language training. Later organizational structure need to be able to cope with complexity and diversity of internationalization processes (Welch & Luostarinen, 1988), therefore establishment of an export department is a sign of higher commitment to internationalization.

To summarize, literature suggests that internationalization deals not only with economic aspects, but also with personal and organizational ones (Kirpalani and Macintosh, 1980; Onkelinx & Sleuwaegen, 2009). As Lawler and Worley (2006) stated, employees' beliefs of organizational capacity to be efficacious influence organizational functioning. But such beliefs are not static, they change with changes of external organizational environment (Bandura, 1997). On each stage of internationalization organizational activity differs because changes occur inside organization and in the external environment. New stage of internationalization is reached by solving the major problems of the previous stage.

Quinn and Cameron (1983) argued that competing values dimensions are associated with different stages of organizational life cycle. For example, when company begins its activity (entrepreneurial stage) innovation, creativity and new resources search are fundamental, hence, open system model is characterized the first stage of organizational development. Instead, when organization begins to develop more structure, policies, procedures, and rules, internal process and rational goal models become crucial. Probably, employees will evaluate competing values dimensions differently also on different stages of internationalization. For example, on the first

stage of internationalization adaptability to foreign market may be important, when stability and maintenance of headquarter's function and structure in foreign branches are important on the third stage. On the third stage of internationalization employees will have stronger beliefs of organizational capacity and organizational future than at the beginning of the process when no one knows what will happen.

In Chapter 2 we argued that collective work engagement is determined by organizational efficacy. Studies of Bakker and Bal (2010) and Tims et al. (2011) reported that daily and weekly fluctuations of employees' work engagement could be observed. Accordingly, we expect that beliefs of collective work engagement may change from one stage of internationalization to another when beliefs of organizational capacity to be efficacious change.

Thus the aim of the present study is to examine organizational efficacy and collective work engagement in different stages of internationalization in order to investigate how employees' beliefs may vary.

# **3.3. STUDY**

### 3.3.1. Method

*Sample and Procedure.* The sample is the same as that described in the Chapter 1. In each company we identified employees from administration, sales and logistic departments, and production director who could provide an overall organizational perspective about how well a given organization performs in general and how well it performs regarding internationalization.

In the present study the level of analysis is organizational; hence, we focus on thirteen companies. The sample was composed of companies on the different stages of internationalization from export via independent agents to production abroad (see Table 3.1).

The criterion of selection of companies in our sample was a stage of internationalization. Consequently, as indicated in Table 3.1, the sample includes companies with different number of employees and different total sales volume. It was in fact impossible to create homogeneous sample for each stage of internationalization, because of particularities of the process of internationalization in Italy. Firstly, Italian companies have begun to internationalize recently, and often rather big and famous companies still do not sell abroad. Therefore in the same subcategory of our sample one can find companies both with many employees and with rather small number of them (e.g., companies 2 and 13, or 7 and 9). Secondly, in Food & Beverage sector often companies use seasonal workers, therefore a company may report considerable total

sales volume and has few employees (e.g., company 3). Thirdly, some companies are part of cooperatives (this is also rather typical situation in Italy), and as they play only a commercial role, the total number of employees is low, but the total sales volume is high (e.g., company 2).

Company	Stage of internationalization	Age of headquarter in Italy	N. employees	Total sales	Export sales to domestic sales
1	Export via agents	21 – 50 years	60	€5 – €9,99 millions	1 - 10%
2	Sales subsidiary	10 – 15 years	16	€50 - €99,99 millions	36 - 50%
3	Sales subsidiary	21 – 50 years	23	€100 - €250 millions	more, than 50%
4	Sales subsidiary	more, than 50 years	31	€50 - €99,99 millions	more, than 50%
5	Sales subsidiary	21 – 50 years	300	€50 - €99,99 millions	more, than 50%
6	Export via agents	21 – 50 years	45	€50 - €99,99 millions	1 - 10%
7	Production abroad	more, than 50 years	38		36 - 50%
8	Production abroad	more, than 50 years	510	€10 - €49,99 millions	more, than 50%
9	Production abroad	21 – 50 years	1150	€100 - €250 millions	more, than 50%
10	Production abroad	more, than 50 years	500	€100 - €250 millions	11 - 20%
11	Production abroad	21 – 50 years	1000	€100 - €250 millions	11 - 20%
12	Sales subsidiary	21 – 50 years	100	€50 - €99,99 millions	11 - 20%
13	Sales subsidiary	21 – 50 years	1000	€100 - €250 millions	1 - 10%

Table 3.1. Characteristics of the companies participated in the study

Note 1: As companies provided exact data unwillingly, we used interval scale to code them

Note 2: Company 7 did not provide total sales volume by reason of trade secret

*Instruments*. Instruments were described in the Chapter 2, study 1, and their high level of reliability was confirmed. Scores for each company were assessed by aggregating responses of employees and calculating a mean for each dimension of our scales.

# 3.3.2. Results

*Data Aggregation.* As in the current study we used an average score for a company, we need to justify aggregation of the data to higher level of analysis. For this aim we used intraclass correlation coefficients – ICC(1) and ICC(2), and within-group interrater agreement  $r_{wg}$  (Bliese, 2000; James et al., 1984). The values of these coefficients were calculated using a tool of Biemann, Cole & Voelpel (2012). The recommended value for ICC(1) is .12 (James, 1982), for ICC(2) is .60 (Glick, 1985), for  $r_{wg}$  is .70 (James et al., 1984). Across all scales in our study the average ICC(1) value was .11, ranging from 0,01 (adaptability) to .43 (efficacy in internationalization); the values for cohesion, human resource development, informational management, adaptability, goal setting, productivity, vigor, dedication, and absorption scales were below .12. The average ICC(2) value was .65, ranging from .22 (adaptability) to .95 (efficacy in internationalization); the values for informational management, adaptability, vigor and dedication scales were below .60. Also,  $r_{wg}$  estimates ranged from .43 to 1.00 (M = .81). ICC (1), ICC (2) and  $r_{wg}$  average values met conventional values indicating an acceptable level of agreement within organizations and justifying aggregation of the data to the organizational level with certain caution.

We also performed multivariate analyses of variance (MANOVAs) to verify whether the variance between companies differs significantly. All fourteen scales were included – cohesion, human resource development, informational management, stability, adaptability, growth, planning & goal setting, productivity, organizational capacity, organizational future, efficacy in internationalization, vigor, dedication, and absorption. Multivariate results showed significant Wilks's lambda multivariate coefficient F(14; 358) = 2.45 (p < .000). Thus, our statistics demonstrated that we could aggregate scores of our variables at the organizational level.

*Statistical Analyses.* We averaged the intraorganization responses in order to represent a company-level score for scales of organizational efficacy and collective work engagement. For competing values scale we used factors scores, as suggested by the author (Rohrbaugh, 1981) and following other studies (Deshpandé & Farley, 2007).

Table 3.2 presents means, standard deviations, and correlations among study variables. Since we used different scaling procedures for different measures in Table 3.2 we presented univariate descriptive statistics for item scores for all measures. Bivariate correlations showed between factor scores and item scores (DiStefano et al., 2009).

Table 3.2 indicates that there is a negative significant correlation between stability and organizational capacity (r = -.65) and organizational efficacy in internationalization (r = -.81). Another negative significant correlation was found between growth & resource acquisition and dedication (r = -.72) and absorption (r = -.57). Human resource development is not correlated with other scales at all. Productivity is negatively correlated with organizational capacity (r = -.71), organizational future (r = -.81), efficacy in internationalization (r = -.70), and absorption (r = -.64). Other significant correlations between scales are in the expected direction.

In Table 3.3 average scores for organizational efficacy and collective work engagement for each group of companies on different stages of internationalization are presented.

	Stage of internationalization						
Variable	Export via agents	Sales department	Production abroad				
1.COHES	.39	.05	05				
2.PLAN	.03	.41	02				
3.STAB	-1.43	02	.21				
4.GROW	66	.20	.08				
5.HRD	09	.23	05				
6.ADAPT	.07	41	02				
7.PROD	.82	53	.10				
8.IM	.10	.02	.07				
9.CAPAC	4.46	5.26	4.77				
10.FUTURE	4.98	5.77	5.26				
11. INTERN	3.96	4.68	4.77				
12. VIGOR	4.18	4.05	4.03				
13. DEDICATION	3.64	4.26	4.51				
14. ABSORPTION	3.90	4.53	3.96				

Table 3.3. Average scores for study variables for each group of companies

We compared them using ANOVA. The significant differences between companies were found for five variables: stability (F = 15.89, p<.001), productivity (F = 32.83, p<.001), organizational capacity (F = 4.22, p<.05), organizational future (F = 5.76, p<.05), and efficacy in internationalization (F = 5.32, p<.05). Based on the comparison post hoc of Bonferroni we can describe three groups of companies in our sample as follows

 Export via independent representatives (agents) – the companies on this stage of internationalization are characterized by lower level of stability that companies on other two stages of internationalization (p<.01 for sales department stage, and p<.001 for</li>

Variable	Μ	SD	1	2	3	4	5	6	7	8	9	10	11	12	13
1.COHES	4.64	.51													
2.PLAN	4.26	.53	.24												
3.STAB	3.97	.83	.28	22											
4.GROW	3.89	.68	14	47	.52										
5.HRD	4.64	.35	.04	.72**	29	30									
6.ADAPT	4.20	.49	.32	.41	22	22	.22								
7.PROD	4.41	.55	.26	42	.69**	.59*	26	31							
8.IM	4.40	.41	.58*	.48	21	29	.01	.24	02						
9.CAPAC	4.40	.52	.19	.64*	65*	55	.30	.65*	71**	.48					
10.FUTURE	5.50	.44	12	.58*	43	53	.33	.64*	81**	.10	.72**				
11. INTERN	4.60	.40	-45	.25	81*	39	.15	.42	70**	.05	.70**	.65*			
12. VIGOR	4.06	.55	.52	.53	05	43	.00	.01	08	.88**	.39	.10	05		
13. DEDICATION	4.12	.53	.38	.69**	54	72**	.32	.48	49	.73**	.79**	.49	.49	.73**	
14. ABSORPTION	4.21	.49	.25	.76**	39	57*	.50	.44	64*	.50	.65*	.74**	.39	.56*	.77*

Table 3.2. Means, Standard Deviations, and Intercorrelations (N = 13)

\*p<.05, \*\*p<.01
production abroad stage). Also organizational capacity and organizational future were evaluated lower than in the group 2 (p<.05 for both dimensions), and efficacy in internationalization was evaluated lower, than in the group 2 and 3 (p<.05 for both groups). Instead, employees evaluated productivity higher than employees in other two groups did it (p<.001).

- Sales department the companies on this stage of internationalization are characterized by higher level of stability than the companies in the group 1 (p<.01). Also employees from the group 2 evaluated organizational capacity, organizational future, and efficacy in internationalization higher, than employees from the group 1 (p<.05 for three dimensions). But productivity was evaluated lower than in the companies in the group 1 and 3 (p<.001 and p<.01 accordingly).</li>
- 2) Production abroad the companies on this stage of internationalization are characterized by higher level of stability than in the group 1 (p<.001) and in the group 2 (p<.05). Productivity was evaluated lower than by the companies in the group 1 (p<.001). Efficacy in internationalization was evaluated higher than in the group 1 (p<.05).</p>

Graphically the differences between groups are presented in Figure 3.1.







Figure 3.1.2. Means for competing values for group 2 (N = 6)

- - - - -

PRODUCTION ABROAD





Figure 3.1.4. Groups' means for organizational capacity, organizational future, and efficacy in internationalization (N = 13)



Figure 3.1.5. Groups' means for collective work engagement (N = 13)

# 3.3.3. Discussion

Our findings confirm that there are differences between companies on different stages of internationalization. Organizations which find themselves on the first stage of internationalization are characterized by perceived lower level of stability than companies in the other two groups. To be stable means to maintain own structure, function, and resources through time. When an organization makes first steps on the international market is has to demonstrate a high degree of flexibility to assume new procedures and adapt to new standards. Indeed, mean for adaptability for

the companies on the first stage of internationalization is higher than in other two groups (see Figure 3.1.1, 3.1.2, 3.1.3).

Interestingly, employees from the companies which sell via independent agents evaluated productivity of their companies higher than employees from other two groups did it. Productivity was assessed by two items: "This organization is not very productive" and "The time and effort of employees is too often wasted in their workplaces". At the beginning of internationalization rapid and constant changes occur. Employees work more intensive, have less free time during the working day, and it seems to them that they and their organization are able to do more. Therefore they perceive organizational productivity higher than employees from the companies with export department or production abroad. The lowest perceived level of productivity was found among companies with export department.

Employees from the companies which sell via independent agents evaluated organizational capacity, organizational future and efficacy in internationalization lower than other two groups (see Figure 3.1.4.). At the beginning of internationalization company simultaneously faces a wide range of problems linked with understanding foreign consumers, applying new norms and standards, establishing partnership with foreign clients, logistics problems, threat of higher international competition, and problems with internal capacities. Employees perceive these problems and become more wary about organizational future.

Employees from the group of companies with production abroad indicated higher level of stability than employees from the group of companies with export department. The companies with production abroad were big famous companies which produce in Russia. These companies need to maintain structure and functions as their headquarters indicate, to assume procedures from Italian headquarters, and to coordinate well own actions with headquarters. These are not possible to do without a certain level of stability. In general, competing values profile of this group of companies is the most balanced, and this may indicate the good performance of these companies, as Yeung et al. (1991) argued.

No significant differences were found in the level of collective work engagement between groups of companies. As showed in Figure 3.1.5 means for vigor were quite the same for three groups, dedication was slightly lower in the companies which sell via independent agents, and absorption was a little bit higher in the group of companies with export department. Organizational performance on the international market is too complex and concern many domains of organizational activity. Also the aggregation indices ICC (1) and ICC (2) indicated insufficient intraclass correlations for the dimensions of work engagement. Therefore, we suppose that it is better to treat collective work engagement at the work group level, as at the organizational level.

#### **3.4. CONCLUSION**

The findings of the current study demonstrated that organizational efficacy differs across companies on the different stages of internationalization. Collective work engagement in our study did not differ significantly across companies. This evidence that organizational efficacy may be treated at the organizational level, when collective work engagement may be investigated at the group or work unit level, but not on the organizational level.

The last stage of internationalization means the highest level of resource commitment and deep market experience. The results show that the companies on this stage of internationalization have the most balanced organizational efficacy profile. This finding has important implication for organizational intervention: managerial effort need to be focused on the development of all eight competing values dimensions.

# **GENERAL CONCLUSION**

In the present dissertation we have considered perceived organizational efficacy and its relationship with other organizational constructs. We defined organizational efficacy as employees' beliefs of organizational capacity to be efficacious. Organizational efficacy was considered from two perspectives: organizational effectiveness and collective organizational efficacy. Organizational effectiveness was operationalized according to competing values approach (Quinn & Rohrbaugh, 1981), while collective organizational efficacy was considered from Bandura's theory of collective efficacy (Bandura, 1997).

We investigated factorial validity of the competing values instrument (Rohrbaugh, 1981). Although we eliminated some items from the original instrument, our results confirmed its eight-factor structure. For what concerns collective organizational efficacy we used two approaches to measure it. The first one was proposed by Bohn (2010) based on the definition of collective organizational efficacy, and we called that instrument as general collective efficacy scale. The three-factor structure, proposed by the author, was not confirmed, and our results showed two-factor structure. The second measure was a specific collective efficacy scale, which was developed following suggestions of Borgogni et al. (2001). This scale evaluated employees' beliefs of organizational capacity to be efficacious on the international market. This instrument demonstrated high reliability. In Chapter 1 we confirmed that organizational effectiveness and collective organizational efficacy evaluate the same construct – employees' beliefs of organizational capacity to be efficacious as in general, and in particular situation, as, for example, international market entry. The findings of our study suggest that competing values and collective organizational efficacy instruments may provide a multi-faceted measurement of employees' beliefs of organizational efficacy.

In Chapter 2 we continued the investigation of organizational efficacy, and examined its relationship with collective work engagement. Work engagement was operationalized according to Schaufeli et al. (2002), while collective work engagement refers to the judgement of employees about how strong their work group as a whole is involved and concentrated on the work. We adapted the UWES-9 (Schaufeli & Bakker, 2003) at the group level, following Salanova et al. (2003). The instrument demonstrated factor structure and reliability similar to the standard UWES-9. Our findings suggest that organizational efficacy fully predicts collective work engagement (vigor, dedication, and absorption). This result is consistent with those studies which investigated the effect of self-efficacy on individual work engagement (Chaudhary, Rangnekar & Barua, 2012; Linnenbrink & Pintrich, 2003). We also investigated an effect of leadership on the relationship

between organizational efficacy and collective work engagement. We found that transformational leadership (in particular, intellectual stimulation and idealized influence) and the most effective component of transactional leadership – contingent reward, enhance the impact of organizational efficacy on collective work engagement. Such effect was expected for transformational leadership, because it is consistent with the previous studies of individual work engagement (e.g., Tims, Bakker & Xanthopoulou, 2011). To our knowledge, no studies have investigated the impact of contingent reward on collective work engagement, and the present results may be tested in the future studies.

We also investigated organizational efficacy and collective work engagement in internationalized companies. Our findings showed that beliefs of organizational efficacy vary across companies on different stages of internationalization, while no significant differences were found for collective work engagement. Internationalization is related to changes of the entire organization, and organizational efficacy reflects employees' beliefs of these aspects (stability of their organization, or future of the whole organization). Instead, collective work engagement refers only to employees and seems not to be related to the processes which touch upon entire organization. Indeed, the values of aggregation coefficients for collective work engagement dimensions did not indicate an acceptability of the aggregation of the data at the organizational level.

### **Practical Implications**

The present results have relevant practical implications for companies. In order to survive in the modern competitive market organizations have to be effective and to meet the requirements of external environment. Employees who daily accomplish their duties represent an important factor for efficacious organization. Their beliefs of organizational efficacy may enhance their willingness to work and contribute to their readiness to bring an extra effort on behalf of their organization. All these have positive impact on the organizational performance. For this reason, it is important that management promptly evaluates organizational functioning using proposed instruments and taking corrective actions.

As our findings suggest that employees' beliefs of organizational efficacy predict collective work engagement, they offer a possibility to increase engagement through collective beliefs. Salanova and Schaufeli (2008) stated that engagement at the individual level may be increased by enhancing levels of self-efficacy beliefs. Hence, a training programme aimed to increase the levels of collective organizational efficacy and improve beliefs of competing values might result in increasing collective work engagement as well.

Finally, our study suggests that organizational efficacy profiles could be generated, and this may be useful for management and consultants in order to diagnose and plan intervention in organizations.

#### Strengths, Weaknesses, and Further Research

The strong points of the present study are the following:

a) We investigated organizational effectiveness and collective organizational efficacy together, and such approach provides a multi-faceted evaluation of perceived organizational efficacy. No previous studies did that.

b) We used SEM to confirm the factorial validity of the competing values model while Rohrbaugh (1981) did not do that.

c) We used both general and specific collective organizational efficacy scales, and no previous studies did that.

d) We investigated collective work engagement, contributing to the literature of collective work engagement.

However, our research has some limitations. The sample of the current research was composed by Italian and Russian respondents. We suppose that this is not a problem for testing the structure of the theoretical models of competing values and collective efficacy, but the validation of the instruments should take advantage of monolanguage sample. Unfortunately due to the small size of two sub-samples it was not possible to use the Italian and Russian samples separately for psychometrical validation of the instruments.

Another limitation is in the sampling approach. Several organizations provided many respondents, when others provided just a few. Clearly, it should be better to get a consistent percentage of employees within organizations.

In some cases procedure of data collection did not guarantee the privacy. In some organizations questionnaires were handed by us and filled in writing, then employees dropped them into a special box, therefore the privacy was guaranteed. In other branches the questionnaires were sent by e-mail to managers, they printed them and distributed among employees; filled questionnaires were collected by managers of the branches, scanned and returned to us by e-mail. Hence, social desirable answers were probable.

Some scales of competing values instrument turned out to have limited reliability (growth, productivity and information management), which may have been problematic. This may have been caused by errors in the items formulations, as it was discussed in Chapter 1. Therefore future studies are necessary to develop scales with higher internal consistency.

Finally, research could be carried out in other industries or even across industries to test the invariance of the proposed structures of the constructs.

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## Appendix

### Definitions of competing values criteria

*Adaptability*: Refers to the ability of an organization to change its standard operating procedures in response to environmental changes.

*Cohesion:* Defined at the conflict end by an organization with verbal and physical clashes, and poor co-ordination. At the other end lies the organization in which the members like one another, work well together, and co-ordinate their work efforts.

*Growth & Resource Acquisition*: Represented by an increase in such variables as total staff, plant capacity, assets, sales, profits, market share, and a number of innovations. It implies a comparison of an organization's current state with its own past.

*Human Resource Development*: A composite criterion that refers to the total value or worth of the individual members, in a balance sheet sense, to the organization.

*Information Management*: Completeness, efficiency and accuracy in analysis and distribution of information critical to the organization.

*Planning & Goal Setting*: The degree to which an organization systematically plans its future steps and engages in explicit goal-setting behavior.

Productivity: The quantity of volume of the product or service that the organization provides.

*Stability*: The maintenance of structure, function, and resources through time, and more particularly through periods of stress.