

# Past Organisational Change and Managerial Evaluations of Crisis:

## A Case of Double-Loop Learning effects in Non-profit Organizations

### Abstract

This paper examines the critical effect of learning from past changes on employees' evaluations regarding the extent that a crisis can be controlled and prevented. It is suggested that previous changes incorporate elements of a double-loop learning process which shape managerial perceptions of crisis controllability and crisis prevention. It is also suggested that sudden changes introduced by the external environment generate crisis-like situations in non-profit organizations. Such double-loop learning experiences can further shape how managers evaluate organizational potential to cope with crises. The present study assesses the extent to which past experiences of change enable managers to become more aware of crisis controllability and prevention. The results indicate that the mere experience of previous changes enhances managers' estimations of crisis control, but lowers their estimations of crisis prevention. The results indicate that using the double-loop learning process contributes to a better understanding of organizational competence in non profit organizations.

### Introduction

All organisations go through changes when striving towards higher effectiveness, competitiveness and survival (Akuga, Lynn & Byrne, 2003). The most visible signs of the need to change often come as a crisis in non-profit organisations (hereafter NPOs). Even "small" changes in funding from a regular source such as the government, or the decision of a philanthropic organization to allocate funds according to different criteria can induce a sense of crisis. Few studies, however, relate to how the occurrence of change/crisis can offer a path of learning that enables NPOs to better evaluate the probability and degree of crisis preparedness i.e. crisis controllability (hereafter CC) and crisis predictability (hereafter CP).

In Israel there is ongoing emphasis on improving organisational processes and outcomes in NPOs. (Rochet, Keramidias & Botut, 2008; Spillan & Crandall, 2002). NPOs face increasing pressure from public and private sources of funding, to (a) compete for access to scarce resources (Guo, 2006); (b) adopt efficient practices like those in for-profit organisations (Baruch & Ramalho, 2006); (c) use technology tools (Mano, 2009), and (d) social marketing (Shoham, Ruvio, Vigoda-Gadot & Scwasky, 2006). At the same time, budget cuts and the introduction of privatization push NPOs to find immediate solutions when public agents reduce support or withdraw from projects, or when the private sector becomes less inclined to donate because of shrinking profits. Often, such changes in budget or returns to pledges do not require an immediate reaction, but from the NPOs' perspective they are considered as crises necessitating immediate reorganization of staff, volunteers and goals, and may even lead to cancellation of projects and well-developed strategies. NPOs are not aware of short- and long-term outcomes of these changes until they are imposed from outside. These changes in the external environment of NPOs can therefore create a sense of urgency similar to that encountered by business settings during economic downturns. We therefore use the notions of past change and crisis interchangeably. As these processes speed up, NPOs managers may be forced to rely upon past occurrences to learn how to handle such problems (Regester & Lurkin, 2008; Mitroff, Pearson & Harrington, 1996) and better evaluate organizational competence to handle crisis in the present and in the future (Ebrahim, 2005).

The theory of double-loop learning can explain how NPOs can build upon past crises evolving from sudden changes in their environment that stimulate diagnostic behaviour and learning (Thornhill & Amit, 2003). However, the study does not directly examine learning processes, but relies upon assumptions of learning theory and incorporates them into crisis management studies (Garvin, 1994; Herman & Renz, 2008). It promotes the notion that double-loop learning is the proper theoretical background for testing the link between past situations of change and crisis and managerial evaluations of present organizational and crisis-coping potential (Regester & Larkin, 2008; Durst & Newell, 2001; Mano, 2009; Turner & Toft, 2006; Thornhill, & Amit, 2003). Using the learning theorems and propositions we assume that navigating through crises affects the degree to which managers think it is possible to foresee and control crises (Jaesub, Woeste & Health, 2007; Cheng-Fei & Yu-Fang, 2008).

This study reflects the emerging interest in Israeli NPOs, and is based on a field study conducted in 2004 among NPO managers. The results reflect managerial evaluations of organizational processes in Israeli NPOs. Recent interest in managerial competence and perceptions suggests that managerial evaluations could replace more technical indicators of processes and outcomes in NPOs (Baruch & Ramalho, 2006) as well as evaluations of profit settings (Ritchie, Kolodinsky & Eastwood, 2007). This could certainly be the case in Israel, because NPOs are often relatively small, so that managers undertake a wide range of tasks and are involved in an extensive range of decisions. Managers tend to retain their positions for a relatively long time, and there is also relatively strong input by board members (Iecovich, 2005). These factors suggest that, given the participatory and often informal aspects of decision-making among NPOs stakeholders, managerial evaluations of crisis are fairly adequate. The present study therefore controls for context and managerial features in NPOs (Parnell, Crandall & Meneffee, 1997; Jaesub, Woeste & Health, 2007).

### **Theoretical Background**

Organisations consist of people, structures and processes. Organisational behaviour and routines are firmly anchored to structure and organisational history, i.e. past experiences in the organisational life cycle and the link between them affect not only present organisational states but also the development of future events (Connolly, 2006). It is mainly through past experiences that organizations as well as individuals develop learning processes which facilitate better adjustments to threat.

To predict CC and CP, a combination of two theoretical premises is used in the present study, namely organisational learning and organisational crisis. Representatives of the first approach (e.g. Marquardt, 1996; Senge, 1990; Watkins & Marsick, 1993) suggest that learning is closely linked to organisational objectives, and its basic attribute is the organisational members' ability to reflect upon past events and future implications in regard to improving organisational processes and outcomes. Accordingly, past experiences of change require organisations to learn how to operate in a "boxed canyon" of constraints (Werther & Berman, 2001: p.29) when the organisational setting is exposed to non-routine situations (Skloot, 2000). It is also assumed that, because business firms are capable of learning from changes and innovations, so too can NPOs (Ebrahim, 2005; Stone, Bigelow & Crittenden, 1999). Indeed, competent NPOs managers can learn how to use these past experiences to better evaluate their present organisational ability in order to control and/or prevent organisational crisis (Regester & Larkin, 2008; Dyck, 1996).

Business failure and crisis have received much attention as worthy of empirical research (Pearson & Clair, 1998: 73) and crisis preparedness and crisis proneness are among the most extensively discussed aspects of organisational downturns and actual coping with organisational crises (Pearson & Clair, 1998). Crisis management has now become a crucial issue in routine and strategic management in NPOs as well (Regester & Larkin, 2008) but their antecedents have received scant

scholarly attention (Rochet, Keramidas & Botut, 2008) whereas tapping into learning paths as a way to avoid/ prevent failures of NPOs (Connolly, 2006; Thornhill & Amit, 2003; Skloot, 2000) has not been tested before.

While learning from such crises about other ways of doing things often reflects expectations imposed by collaboration with public and business settings (Rochet, Keramidas & Botut, 2008), NPOs have recently shown a greater willingness and readiness to learn and develop strategic answers, but they seldom address issues concerning how learning takes place, and learning from previous experiences has often been a major strategy for evaluating organisational capabilities such as those involved in crisis management (Scheaffer & Mano-Negrin, 2003; Turner & Toft, 2006; Thornhill & Amit, 2003). Some crisis-related studies suggest, as do the learning advocates, that crisis preparedness in organisational settings reflects how organisations differ in their coping mechanisms, and that these differences eventually distinguish winners from losers by *'their ability to respond to the pace of change'* (Ulrich, 1998: 130). Similarly, this aspect is often raised in studies adapting a holistic approach to change where learning concepts are used to promote issues of organizational competence and potential to cope with environmental hazards (Kontoghiorghes, Awbrey & Feurig, 2005).

According to Watkins and Marsick (1993) a learning organisation is one that learns continuously and transforms itself. An organisation that continually expands its capacity to create its future (Senge, 1990) is a learning organisation that can create, acquire and transfer knowledge, and modify its behaviour to reflect the knowledge gained (Garvin, 1994). Despite some confusion about the learning organisation concept (Fiol & Lyles, 1985), studies indicate that a distinction should be made between single-loop (low-level) and double-loop (high-level) learning. Single-loop learning focuses on gaining information to stabilise and maintain existing systems in which emphasis is on error detection and correction. Double-loop learning looks at deeper organisational norms and structures, raising questions about their validity in terms of organisational actions and results (Marquardt, 1996: 38). This learning is a process of exploration, a search for hidden aspects of past experiences, and an exploration of new possibilities. Critical events such as bankruptcy provide a basis for re-evaluating organizational concepts (Thornhill & Amit, 2003), and valuable lessons about how to improve performance (Cheng-Fei & Yu-Fang, 2008; Ritchie, Kolodinsky & Eastwood, (2007). According to Garvin (1994), the ability to assess previous successes and failures and capitalize on the knowledge gained through learning from past experiences enhances the development of innovative, almost prophetic perceptions, of the reality, and increases organisational capability to adapt to its environment in NPOs (Skloot, 2000). Hence, learning has been identified as a "core" capability.

Central to the components of learning (knowledge, information and understanding) is the ability to channel and transmute knowledge and experience into proactive and reactive action. Further to this insight, learning is useless if it is not timely and properly applied. Practice-based studies (Gherardi, 2005) emphasize this, and highlight the process of institutionalizing learning practices. Recent empirical findings demonstrate that individual learners form institutional identities by defining what and how they learn in relation to the status quo, rather than as a means of challenging or changing organizational routines.

Leaders are thus encouraged to adopt styles of communication and learning that facilitate dealing with crisis events (Garcia, 2006). These findings suggest that learning may be limited owing to contextual, political and habitual patterns in organizations, but there is still scope for unlearning business theory by exploring different dimensions of this process (Drucker, 1994). Thus, previously acquired knowledge can help to revise earlier assumptions and actions (Argyris & Schon, 1996), while past mistakes can teach managers to modify how they cope with current situations and evaluate future trends (Ebrahim, 2005). "Learning-in-practice" addresses the way in which managers

proactively alter their approach to change by discovering new ways of learning and coping. Not surprisingly, there has recently been increasing interest in antecedents and outcomes of managerial learning perceptions. Some studies show how perceptions of learning climate affect managerial perceptions of change (Westerberg & Hauer, 2009) as well as performance levels and professional roles (Hetxner et al. 2009). A study by Goldman, Plack, Smith and Turley (2009) presents the dynamics of learning in the chaotic environment of emergency rooms in hospitals, and the recognition of change as an opportunity for acquiring knowledge and developing competence. The authors describe how events related to urgent episodes vary in intensity, how duration affects the degree of motivation and self-direction required of the learner for coping with the workplace environment after such an experience (Hoekstrad et al., 2009). Others examining social-work settings emphasize how informal workplace learning can be integrated in interdependent practices arising from interaction between social practices and individual attributes, and how potential for change and improvement is the main outcome of reflection and awareness (Gola, 2009). It is suggested that organizational realities are often the actualized outcomes of perceptions, and can shape the extent and quality of information required to elaborate on problem-solving and decision-making, i.e. what is learned during crisis can affect the level of an organization's crisis preparedness (Crossan & Vera, 2004; Register & Lankin, 2008). Deriving from the double-loop theorem, it is assumed that

*H1: Managers of organisations that have experienced organisational crises in the past will rate higher in CC and CP.*

In organisational settings, however, the learning process is more complex, involved with the organisational reality reflected in contextual and structural features (such as age, size and location) as well as the level of managerial competence (education and experience).

### Contextual Effects

Some treatises on crisis insist on the importance of structural contingencies in both detection of and coping with crisis (e.g. Richardson, 1993; 1995; Mitroff & Pearson, 1993), and organisational structures and managerial competence have recently been viewed as "viable" strategic choices rather than as simply as contributors to organisational success (Skloot, 2000; Bauer & Richardson, 2009). However, the strategy of organisational success through learning and coping has been developed but not yet tested in NPO environments (Ebrahim, 2005; Bargal & Schmidt, 2002; Durst & Newell, 2001).

Findings reported in the organisational-ecology literature (Hannan & Freeman; 1989) suggest that larger firms tend to be inert, less keen to change existing routines, and consequently more prone to crisis. This has negative influence on openness and risk-taking, and stifles creativity and innovation (Tushman & O'Reilly, 1996). If organisational systems are dysfunctional, as they often are in large organisations, information processing becomes inadequate (Schmidt, 2002), so that older organisations tend to rely on their past record of successful (rather than deficient) activities, thus becoming inherently crisis-prone (Richardson, 1995: 68). This is the core of failure in the double-loop learning process.

A third variable associated both with age and size is location. Successful NPOs are more likely to be centrally located in cities, thereby enhancing social legitimacy from potential stakeholders, as well as their potential impact on social and political frameworks capable of affecting public opinion and policy (Parnell, Crandall & Menefee, 1997; Dyck, 1996). More specifically, older and larger organisations are characterized by strategy, culture and structure which are "tighter", less consistent with variety and flexibility. As a result they become crisis prone and fail (Connolly, 2006). The double-loop learning theory assumes that

*H2a: in larger organizations where the learning potential is higher, evaluations of CC and CP will be higher,*

*H2b: in older organizations where the learning potential is lower, evaluations of CC and CP will be lower,*

*H2c: In centrally located organizations where the learning potential is higher, evaluations of CC and CP will be higher.*

An additional aspect to consider here, however, is whether the individual characteristics of managers are also accountable for potential differences in CC and CP.

Apart from strategic preparedness, how managers *intuit* the future, predicated on “what happened before and what is happening now”, derives from what is often reported as anticipatory knowledge enabling evaluation of crises (Richardson, 1994: 60), including organisational beliefs and norms oriented towards **reducing crisis-proneness** (Thierry, Pauchant, & Mitroff, 2006; Richardson, 1993, 1995). **Managers with boundary-spanning capabilities** in which these norms and orientations are best reflected play a key role in assessing crisis control and evaluating the structure in this context (Schmidt, 2002). In crisis-prone companies, managers often develop faulty presumptions and defensive mechanisms regarding perceived vulnerability. Such assumptions include fallacies such as ‘*Crisis happen only to others*’, ‘*Size will protect us*’, ‘*Well-managed firms don’t encounter crises*’, all of which are indications of sloppy management (Richardson, 1993, 1995). As a result, arrogance attitude or hubris (Richardson, 1994: 30) can be expected, and crisis-prone managers are often competitive and transactional, taking unnecessary risks, unwilling to learn, and revealing, to some extent, a level of “mathophobia” - fear of learning - (Antonacopoulou & Gabriel, 2001).

In contrast, according to learning theories managers and employees facilitate the link between learning and organizational activities: learning from previous experiences according to the double-loop hypothesis is a step towards recognising previous mistakes (Antonacopoulou & Gabriel, 2001). Evaluating future crises implies acknowledgement that a current situation is probably related to past adversities. Radical changes raise questions such as managers' confidence in addressing future crises. Managers who have been involved in radical changes may have doubts regarding their ability or inability to come to grips with the consequences of those changes. It is assumed that the move from past “objective” situations to present “subjective” attitudes may be a crucial link between successful and unsuccessful CM. It is also suggested that the more managers have experienced past radical changes, the more familiar they will be with hitherto untested or “unknown” situations, hence the better they will be at managing crises.

Reger and Larkin’s (2008) book examines how NPOs in Britain react to coping with risk issues in public relations. Using a set of “**best practices**”, the authors support the notion that learning enables coping with economic fluctuations because the cyclical aspect of economic activity enables managers to learn from past experience. Furthermore, they suggest that perception is “real” in crises, i.e. managers often implement strategies based on “perceived” threats and opportunities, again sharpening their intuitive reactions to economic events. Indeed, as NPOs are now facing ongoing restriction in budgets and private support (Guo, 2006) the manager’s potential to learn from such experiences is significant. This potential is traditionally indicated by differences in managerial skills, i.e. occupation/professionalism and experience both of which shape management skills and competence. In Israel, some NPOs may be managed by social entrepreneurs lacking formal managerial expertise and pursue concrete goals with minimal resources. Others represent large, often international groups that appoint skilled professional managers to successfully manage and promote the organizational vision. This is why managerial skills can lead either to exaggerated confidence or to a more balanced approach. In this study, managerial learning potential is measured according to

length of service in a company and level of education (Garcia, 2006). It is expected therefore, according to the double-loop learning theorem, that

*H3a: professional managers will evaluate CC and CP higher and*

*H3b: experienced managers will evaluate CC and CP higher.*

### Structural effects

Organisational structures are indicative of constraints that may prevent management from being effective in organisational processes, because they shape organisational features reflecting strategic choices in the definition of goals and processes (Sine, Mitsuhashi, & Kirsch, 2006). Recent studies ~~Management Crisis practices~~ Management Crisis practices organisations are more able to avoid/ prevent failures because of flexible structures and work processes. Flexible organisations are more strategically focused, appropriating more resources for overcoming threats and making the best use of opportunities. Organisations appropriately positioned for tackling turbulent environmental conditions effectively, both in “preparing” for crisis and in terms of learning from past failures, will eventually be better able to actually control and prepare for crisis (Pearson & Clair 1998: 60; Mitroff, Pearson & Harrington, 1996; Regester, 1987).

Crisis-related mechanisms may also be related to the existence use of organic, i.e. flexible and adjustable, vs. “mechanical” i.e. inflexible and rigid, organizational structures (Cooney, 2006; Sine, Mitsuhashi & Kirsch, 2006). Pearson and Clair (1998: 65), state that unmanageable or uncontrollable disasters occur as the result of an inherent interactivity between structure and technology (Pearson & Mitroff, 1993; Shoichet, 1998; Book & Werther, 2001). Such crises are not uncommon in NPOs, and have frequently become a routine concern. As environmental changes in stakeholders’ expectations increase, NPOs must adjust to turbulent conditions (Parnell, Crandall & Menefee, 1997; Durst & Newell 2001), so that many forms of learning are considered, even at the expense of losing in terms of independence (Sowa, 2009).

Learning theorists point out that structure is an outcome of organisational learning and usually conditions organisational learning itself (Fiol & Lyles, 1985). Central structures tend to reinforce past behaviour (slowing learning) whereas decentralised structures facilitate the assimilation of new patterns. Weick (1979) theorizes that organising past structures can shape present actions, supporting Giddens’ (1984) claim that today’s actions shape tomorrow’s structures. This suggests that structures induce or at least facilitate organisational outcomes and processes. Indeed, recognizing that some structures are more conducive to organisational learning than others has led to support for the argument that organisations should actually be designed so as to enhance their ability to learn (Duncan & Weiss, 1979).

Identification of which structural configurations are most conducive to learning (Garvin, 1994; Covin, Slevin & Heeley, 2001) is problematic, because it is assumed that NPOs are organic and flexible structures with high levels of volunteer participation in a system based on collaboration between salaried and volunteer members (Bargal & Schmid, 1992; Brayson, Gibbons & Shaye 2001; Durst & Newell 2001). As NPOs have grown in complexity, this assumption needs to be reviewed, and we need to examine how well-designed and coherently synched structures withstand adverse circumstances. It is expected that, in relation to the crisis hypothesis:

*H4: managers from flexible (and hence learning) organisational structures will evaluate CC and CP higher.*

## **Method**

### ***The sample***

The present study is based on a field study of 225 NPOs. Names and telephone numbers of the organisations were included in the annual report of Shatil -an umbrella organisation providing training services and consulting to members (Shatil, 2001). Using Shatil's 2001 list of organizations, interviewers contacted managers of organisations operating in 2004. By telephone or email, interviewers requested permission to call interviewees at a later date in order to administer a 64-item questionnaire related to their organization's operations, structure and practices. If managers were not available, official members at the next managerial level were asked to respond to the survey (N=8). 62% (135 organisations) returned the questionnaires.

Mean organisational age was 14 years, 30% were centrally located in cities. Managers averaged six years of organisational experience, and 50% of them had professional training. For detailed descriptive statistics see Appendix 1.

### **Measures**

Dependent variables: Exploratory factor analysis (EFA) was chosen for factors related to crisis and learning, because these factors have not been examined previously. Two factors were extracted for the analysis. In the first measure - 'crisis controllability' - three items were loaded. The second factor (loading two variables) 'crisis prevention' was distinguished from 'crisis controllability' in that the former assumes that a crisis has already happened whereas the second assumes that crisis has not yet been detected. These two factors were entered as the dependent variables in the model. Crisis controllability –CC- was composed of three items in answer to the following questions (ranging between 1 = lowest and 10 = highest evaluation): (a) Is it possible to control crises? (b) Is it possible to control the extent of a crisis once it has occurred? (c) Is it possible to control negative outcomes of a crisis once it has occurred? (Alpha Cronbach = 0.762). Crisis prevention – CP- was composed of three items in answer to the following questions (ranging between 1 =lowest and 10 = highest evaluation): (a) It is not possible to foresee crisis events (b) It is not possible to foresee crises as they mainly occur because of environmental changes (c) It is not possible to foresee crises as they mainly occur because of human error (Alpha Cronbach=0.713). For CP scores, values were inverted to account for the negative direction of the items. It was postulated that, because of increased competition, NPOs would be more susceptible to downturns, but due to their non-profit status they might be less able to either control or prevent crises.

Organisational change which, according to Mitroff (1996), is often accompanied by a sense of crisis was denoted by a dichotomous variable (1=Yes, we experienced an organisational change during the last year; 0= No, we did not experience any organisational change during the last year). Organisational context effects included (a) organisational size: number of employees (b) organisational age: years of operation (c) location: 1= metropolitan area.

Managerial characteristics (a) experience: years of employment (b) occupation, 1=holding a CEO position; Structure : (a) number of volunteers (b) number of full-time employees (c) number of long-term employees (d) number of temporary employees (e) Number of employees with academic degrees (f) number of managers (g) number of clerical positions (For presentation of means of analysis variables see Appendix 1).

### **Statistical Analysis**

The correlation matrix estimates (Spearman rho) are presented to evaluate the degree of relationship between the examined variables. A regression estimation model is then applied to estimate the additive effect of past change experiences and structural constraints on corporate orientations on CM. Lastly, regression estimates are presented to predict the direct effect of each of the analysis variables on the dependent variables, i.e. (1) 'crisis controllability' and (2) 'crisis prevention'.

## **Findings**

**INSERT TABLE 1 ABOUT HERE**

The findings reveal that age and size are the most influential factors in attitudes towards crisis. Age is related to the number of full-time employees and of middle-level managers, and to organisational change. Similarly, size is significantly related to structural characteristics such as the number of full-time and long-term as well as temporary employees, middle-level managers and clerical positions. However, size is *not* related to organisational change. An important finding is that metropolitan location and experienced managers are significantly related to organisational change. These insights suggest that structure is both directly and indirectly - through the competence of managers - linked to organisational change. How are these characteristics related to CC and CP? To answer this question, two-step regression models were created to test the additive effect of four sets of independent variables entered in (a) the model predicting CC and (b) CP. As indicated, this standard procedure enables measuring estimation of the relative predictive power of each set of independent variables separately.

### **INSERT TABLE 2 ABOUT HERE**

The findings suggest that the combination of contextual variables into one single set (organisational age, size and location) does not significantly improve a model predicting CC or CP in NPOs (even if their direct effect presented in Table 3 on CC and CP is significant. Nor do managerial characteristics -education, professionalism and experience-. However, NPOs structure plays a decisive role in predicting CC, adding 35% to the explained variance of the examined model ( $R^2$  change = .351), raising the model's total predictability to 42% ( $R^2$ = .421). However, organisational structure does not significantly affect prediction of CP. This may be due to the assumed difference between CC, suggesting that crisis control assumes an actual occurrence of crisis, whereas CP refers to a hypothetical situation.

The statistical test of the model developed in the study shows a significant effect of past experiences of change on both CC and CP. This variable contributed 21.6% of the explained variance of CC ( $R^2$  change = .216) and raised the model's total predictability to 63% ( $R^2$ = .636). A smaller but also significant relationship between past experiences of change and CP is revealed, indicating 1.51% explained variance ( $R^2$  change = .151) of CP, and raising the total variance of the model to 4.76% ( $R^2$ = .476). These results suggest that learning from the past has a significant impact in determining managers' conceptions of the potential for controlling future organisational crises and, to some extent, preventing them. For specific insight, standardised regression estimates (betas  $\beta$ ) of the model are presented. The coefficients test the direct effect of all independent variables in the model (Table 3).

### **INSERT TABLE 3 ABOUT HERE**

The results suggest a large number of independent variables have a significant effect on both CC and CP. More specifically, context variables have a negative effect on both. The negative effect of size on CC ( $\beta$  = -.7.364;  $p$ = .000) and CP ( $\beta$  = -.8.765;  $p$ = .000) suggests that as NPOs become more bureaucratised, and thus more difficult to manage, the perceived odds of handling crisis-related situations decrease (Richardson, 1993; 1995). These findings confirm Hypotheses H2a and H2b. Surprisingly, age has no effect on CC and CP. Another unexpected finding is that location has a negative effect on CC ( $\beta$  = -.551;  $p$ = .000) and CP ( $\beta$  = -.457;  $p$ = .000), thereby eliminating Hypothesis H2c.

Concerning managerial characteristics, two opposing trends are revealed. On one hand, managerial experience seemed to have no effect whatsoever on either CC ( $\beta$  = -.267;  $p$ = .010) or CP ( $\beta$  = -.180;  $p$ = .136). On the other hand, managerial professionalism had a positive effect on both CC ( $\beta$  = .760;  $p$ = .000) and CP ( $\beta$  = -.678;  $p$ = .000). Hypotheses H4a and H4b were thus confirmed.

A mixed relationship between inflexible structural components and higher awareness of CC and CP was also revealed. Most of the structural level effects (apart from the insignificant effect of volunteers) had a positive effect on CC and CP. It should also be stressed that the number of managers, indicating a hierarchical (hence inflexible) structure, had a negative effect on both CC ( $\beta = -4.787$ ;  $p = .056$ ) and CP ( $\beta = 1.728$ ;  $p = .056$ ). These results are consistent, to some extent, with Hypothesis H3.

More important is that Hypothesis H1 is supported by the results. Learning from past organisational changes significantly and positively enhanced CC ( $\beta = 8.229$ ;  $p = .002$ ), though learning does not have a similar effect on CP. The results indicate that past experiences affect CP negatively ( $\beta = 3.715$ ;  $p = .000$ ). It is possible that learning from the past increases confidence in the system, but it also creates greater awareness of factors that may make us vulnerable since it is not always possible to control situations that generate crisis. This contradiction is a significant aspect of learning theory (Argyris, 1976; Senge, 1990).

## Discussion

The present study was triggered by questions often asked by individuals facing a crisis. Why do I have this crisis? How could I have spared myself this distress? Why did I not see it coming? I have been there before.....how can these mistakes make me wiser.....? Managers often confront such dilemmas, but managers in NPOs have not properly addressed such questions, possibly because there is little evidence of how performance relates to organizational processes (Radell, 2006; Register & Larkin, 2008; Parnell, Crandall & Menefee, 1997; Bigelow & Crittenden, 1999).

The present study has used a theoretical double-loop learning framework to assess whether past changes, often associated with crisis in NPOs, offers a significant learning route that can affect managerial evaluations of crisis control. The intention was to show that organisational change - usually examined on its own merits - reflects a double learning process in which managers rely on past experiences of organisational change in to evaluate organizational competence in crisis management. Two measures - crisis controllability and crisis prevention - were examined, thus combining learning and crisis theories. We suggested that by adhering to the double-loop learning hypothesis, the study teaches us that past organisational crises in NPOs offer a possible learning path. Indeed, managerial evaluations of crisis management, i.e. controllability and prevention, have not been tested in the context of double-loop learning, and had not previously been examined in regard to the non-profit sector. This proved to be a challenge because in contrast to the business sector, where crises are a "standard" phenomenon, and despite the increasing "regularity" of this phenomenon in NPOs, there has been no previous evidence of the nature of factors shaping managerial evaluations of crisis. Nor is there any documentation concerning whether and to what extent such crises are perceived as controllable or preventable in NPOs.

Yet, budget cuts announced at short notice have often been the reason for the cancellation or reduction of vital nonprofit programs; human resources must be downsized, and projects, even successful ones, must be finalized or modified. Because of such possible changes, managers must evaluate their organizations' competence to face the consequences of crisis. Double-loop learning effects can occur, and other organisational level factors - age, size and location - can assist in the formation of organizational preparedness for crisis.

The results suggest that previous changes can provide a viable learning path, and can shape the extent to which managers can evaluate their organizations' potential to cope with crisis. These findings corroborate Richardson's (1995) challenging supposition of learning as a critical component

of organisational crisis-proneness. Such lessons are best learned when structures are flexible. "Systemic" and "corporate" thinking is easier among organisations with flexible structures. There is considerable evidence that large and old organizations are better equipped with resources in either human or physical support. In such NPOs stakeholders are more loyal and their goals are strongly supported by the institutional environment.

These organizational level aspects can possibly facilitate NPOs coping with crises. The study's findings support that overall controlling crisis is easier in complex structures -more volunteers and employees- such structures cannot prevent crises from happening suggesting that crises result from outside shocks rather than internal lack of competency. The overall effect of the remaining organizational aspects though was found to be insignificant to either prevention or controllability of crisis. Moreover, organizational context variables –size and age, and their correlation with metropolitan locations are no longer considered as effective in enhancing CC and CP and, in fact, reduce them. Similarly, in relation to bureaucratic settings and mechanisms, the number of managers was found to be negatively associated with CP. A reliable workforce, on the other hand, (reflected by the number of full-time and long-term as well as short-term and temporary employees) increases the perceived capabilities of CC and CP. Surprisingly, the size of volunteer workforce is not significantly related to either CC or to CP: contrary to common-sense conceptions suggesting that NPOs are successful because of their flexible i.e. volunteer workforce that allows lower expenses and higher involvement (Mano, 2009) it seems this is not necessarily the case in Israel (Schmidt, 2002). In other words present organizational configurations can only partially affect crisis containment in NPOs.

Moreover, the findings do not fully coincide with earlier assumptions pertaining to the managerial potential as affecting crisis-related conceptions and point to a lack of effect of managerial competence on CC and CP. Managers do not perceive themselves as able to control and prevent crises despite their experience and professional skills. Contrary to classical theory, which suggests that capable managers are not merely geared towards success but are also keen on averting potential crises, this does not seem to be the case in NPOs. One possible explanation for this may be related to the fact that most of the effectiveness and efficiency criteria in NPOs *cannot* be controlled by managers. Managers seldom have influence on levels of budgets and public support necessary to sustain organisational resources, even though they are capable of efficiently running the organisation. It is also possible managers cannot really influence organisational processes because of the critical role played by public boards in organisational administration and in the definition of organisational goals. Thus the association between effective strategies of crisis readiness and managerial potential is, not straightforward. Although, effective organisations aim at enhancing commitment, satisfaction, and cooperation amongst managers and employees, it seems that lack of empowerment (for example) and other management-related correlates generate counter-productive outcomes and increase indifference (Kontoghiorghes, Awbrey & Feurig, 2005).

Finally, a positive effect of past changes on crisis containment in NPOs supports the hypothesis that *learning* as the outcome of previous changes improves crisis controllability and prevention confirms the critical role of learning in NPOs. We must bear in mind that NPO culture has not always had to deal with adaptation towards increased performance or efficiency based goals whereas social goals are easily translated into a "lack" of business-oriented approaches. Nowadays NPOs strive though for financial as well as social goals survival in a competitive arena where multiple "social advocates" claim their share of public and community support. As a result NPOs undergo an organisational "shock" followed, in many cases, by organisational changes. Such changes have certainly been not easy, even when initiated by the organisation itself, but they have added considerably to valuable "know-how" for smoothly-running NPOs. Learning has been experienced through the adoption of "business-like" concepts such as competition, lack of resources, policy changes, and a lack of

response to social causes. Lack of performance and efficient management are thus critical lessons to be learned from past experiences in NPOs as well as in business settings.

### Implications and Recommendations

Though significant, the findings are suggestive rather than conclusive. Because the study focused on NPO managers' orientations and attitudes at a single point in time, they point to a functional rather than causal interaction. Another conspicuous weakness is the relatively small sample, as is the fact that the choice of firms was made in an exploratory rather than a pre-designed research strategy. Future studies should extend the scope into interrelations between formal and informal learning mechanisms and performance. Finally, it should be emphasized that the diversity of NPOs in Israel does not enable clear-cut conclusions about the link between past experience and current states of learning and crisis management. Many organizations tend to learn as they function, rather than drawing conclusions about the value of learning in improving organizational processes.

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