Organizational change and change readiness: Employees' attitudes during times of proposed merger

Tryggvi Hallgrímsson

Preface

First I would like to thank my tutor dr. Rudi Kirkhaug for his helpful comments and guidance. I'm grateful to my parents Kristín Aðalsteinsdóttir and Hallgrímur Indriðason, who have supported me and encouraged me to study in Norway. I would like to thank my wife, Þóra Pétursdóttir, for her genuine support.

I would like thank the Faculty of Social Sciences for giving me the opportunity to study at the great facilities provided by the University of Tromsø. I would also especially like to thank the wonderful staff at the university library for their most helpful assistance.

Summary

The objective in this thesis is to investigate the effects of organizational change. This is done through the review of literature and empirical analysis. An important part of this process involves developing measurements of the main constructs of interest; job satisfaction, uncertainty, commitment and change readiness. The relationship between the main constructs and change readiness is then investigated with special emphasis on testing hypotheses introduced under the first of three propositions. Further analysis then investigates two more propositions, one testing the assimilation of attitudes of Executive Managers and employees' to organizational change, and one testing the relationship between the rate of change and change readiness.

The study is based on two types of primary data. One is a questionnaire survey administered among employees of three Icelandic governmental organizations, all considered applicable for a merger. Another type of data was gathered by conducting interviews with Executive Managers of all three organizations.

Findings suggest that change readiness increases as measured levels of job satisfaction increases. Findings also suggest that change readiness increases as uncertainty decreases, but the relationship between change readiness and commitment is not determined by the findings.

Two of the three organizations surveyed had significantly different levels of change readiness. Findings suggest that employees' change readiness is reflected in the attitudes of Executive Managers. Findings also suggest that employees and Executive Managers in organizations facing discontinuous or radical change do not report lower levels of change readiness, than those facing incremental organizational change.

Table of contents

Tables and figures

1 Introduction

Organizations need to take into consideration a multitude of different stakeholder-expectations. Their own expectations and values need to be coherent with their prospected output. Also, organizations must take into consideration the wants and needs of society and the ideas society has regarding their functions and ultimate necessity.

The ability of organizations to adapt and change has become a central research issue focusing on the complexities of regulatory, political, technological and social changes. So central, in fact, is *change* to the study of organizations that in an introduction to the *Handbook of Organizational Studies,* a book Dag Ingvar Jacobsen (2006, p. 13) calls a "bible" within organizational theory, the authors Clegg et al. explain: "…we did not include a chapter on change because we cannot imagine any theory of, or chapter on, organizations that is *not* about change" (1996, p. 11). Ten years later, when the book has been published in a revised second edition, a chapter on *radical organizational change* is included wherein authors Greenwood and Hinings (2006, p. 814) say that "[t]oday, it is commonplace to note that the volatility of changes confronting organizations has dramatically increased".

In light of competitive uncertainties the notion of planning for the future is constantly changing. Organizational change and the environmental turbulence of the modern market economy has brought about a need to re-define the meaning of career-development (Adamson et al. 1998, pp. 253−256). Definitions of careers are changing. For employees in today's market economy the importance of a "career for life" is becoming less significant. More important is their employability and the marketability of skills.

Given an opportunity to advance within their occupation, stable work environments will ideally lead to job satisfaction and commitment to organizations (Curry, 2003, pp. 567−568). Stability, however, is seldom attainable within organizations for longer periods of time. Employers are both subject to changing demands of external environments, as well as the resulting changing organizational structures implemented as reactions to changing environments.

In an effort to address organizations' need for clarity during times of change the field of change management has been born. Organizational change has many faces and many types of manifestations, occurring because of societal or technical environmental changes, as well as being rooted within socio-systemic structures of organizations themselves. Change management is by no means a distinct discipline with clearly defined boundaries. Rather it

borrows from a number of disciplines, making the task of defining its core concepts so much more difficult (e.g., Burnes, 2004b, p. 261; Burnes, 2005, p. 73).

Multiple theories within the field of organizational change have tried to address the complexities of modern organizations, but by some accounts only producing "theoretical pluralism" (Van de Ven & Poole, 1995, p. 510). However when striping change processes to bare essentials the foundations of organizational change can be defined as taking place on three different levels; the individual level, the group level and between, and within the structural levels of the organizational system itself. Different types of organizational change can be broadly categorized to be; *continuous* or *radical*. This categorization is used in this thesis to distinguish between changes that occur over time in small proportions (continuous change) and changes that present revolutionary divergence in operation and/or structure (radical change).

It can be appropriately argued that no study of organization is able to overlook the importance of change. However it is the extent of the changes that is often so hard to make clear, and the effects changes have on employees that is so hard to determine. With this in mind the thesis sets out to give a synopsis of the place organizational change has within the field of organizational theory-studies, and the place theory on organizational change has in aiding the analysis and investigation of a case specific merger.

Before giving an outline of the theory of organizational change, presenting theoretical constructs of interest and reporting the findings, the remainder of this chapter will explain the objective of the study, the research questions as well as the specific case under investigation.

1.1 Theme and motivation

If clichés carry with them truth, then truth lays in the cliché that modern society is moving at increasing speed. This is evident in the flora of books on management that will delineate on the multiple effects of a "technological age" characterized by increasing competitiveness and need for specialization.

If society is moving fast, environments within it are also likely to be constantly changing. It is within this context, of ever changing environments, that organizational change and to a more specific degree *change management* has been established as a field within organizational studies.

Organizations are sensitive to their environment and look for different ways to conduct operations. When need for change is acknowledged organizations consequently become subject to increased uncertainty. This is particularly evident when organizational merger is part of the needed change (Tidd, 2001, p. 175). This thesis is motivated by an interest to investigate the complexities at work in organizations when faced with the need to change.

Change literature has identified different levels of change and varying steps involved in change processes. This, however, has not translated fully to the development of process-models nor definable and empirically tested analytical tools for change implementation. By suggesting ways to measure important social and psychological aspects within organizations during times of proposed organizational restructuring, this study aims to contribute in developing a better understanding of organizational change and its effect on employees.

1.2 Research objectives and questions

The central objective of this thesis is to investigate the effects of organizational change. Firstly this is done through the review of literature on organizational change. Secondly through empirical analysis, looking at the relationship between social psychological constructs of interest during foreseen organizational restructuring, with special emphasis on change readiness. Change readiness is then investigated especially as it relates to the attitudes of Executive Managers and the rate of change.

If organizations are to seriously contribute to a successful outcome of mergers they need specialized capabilities to assess consequences of their actions. Specialized capabilities involve analytical tools to determine the effects changes have on employees. A very important part of this thesis involves developing measures of variables under investigation. The variables (constructs) measured are; *job satisfaction*, *uncertainty*, *commitment* and *change readiness*. The data in this thesis was gathered in a study of an actual case involving a proposed merger of three Icelandic organizations. A questionnaire survey was administered, as well as interviews taken with the Executive Managers of the organizations.

The thesis aspires to seek answers for three main propositions. All rest on a general theory of organizational change. The first proposition (P^1) serves as an underpinning for the quantitative data gathering and the later the development of three hypotheses. The testing of the second proposition (P^2) is dependent on data from the survey and the interviews with

Executive Managers. The third proposition (P^3) is also dependant on both the qualitative and quantitative data gathered from the survey and interviews.

- **Proposition 1: (P^1) Change readiness is affected by social and psychological aspects, significant in organizations facing merger**

- **Proposition 2: (P^2) Employees' levels of change readiness are reflected in the attitudes of Executive Managers**

- **Proposition 3: (P^3) Employees in organizations facing radical or discontinuous change report low levels of change readiness**

In the following chapter the particular case under investigation is briefly introduced.

1.3 Introducing the cases: historical background

The empirical part of this thesis focuses on the proposed merger of three Icelandic organizations which all fall under the legislative supervision of the Ministry of industry and commerce. These organizations are; The *Icelandic Technology Institute*, the *Regional Development Institute of Iceland* and the *Icelandic Building Research Institute*. To give and outline of the three organizations, each is briefly introduced here in light of its main function and responsibility. In the presentation of findings from the interviews (chapter 5.2) a more complete depiction of organizational culture and aspects relating to the principal constructs of measures is give.

1.3.1 Icelandic Technology Institute

The Icelandic Technology Institute was initially part of the University of Iceland's Economic and Industrial Research Institute. The Icelandic Technology Institute was founded in 1978 due to a government initiative to enhance research in the fields of technology. In resent years the institute has been serving a growing range of international and domestic clients with specialized production needs. Its primary aim has been to strengthen and enhance the

Icelandic economy through development, innovation and consultation with the central aim of increasing productivity within a wide range of manufacturing and industries.

Employees have a broad background and a high level of education. This includes specialists in laboratory testing and research as well as management experts and educators. The Icelandic Technology Institute has been responsible for providing companies with consultation both on technical and managerial matters. Consultation aims at improved product- and manufacturing quality, automation, and increased management capabilities. Since the year 1999 The Icelandic Technology Institute has maintained a sub-branch called IMPRA, which assists inventors and entrepreneurs to evaluate business ideas as well as providing comprehensive counseling for start-up businesses. The institute's center of operation of is located in the capital Reykjavik.

1.3.2 Regional Development Institute of Iceland

The Regional Development Institute of Iceland is responsible for implementing governmental policies relating to or regarding regional development and persistence of economic regional policy. In order to fulfill its task the Regional Development Institute manages special funds and loan-programs for businesses.

The Regional Development Institute of Iceland is also responsible for carrying out research and communicates relevant knowledge to authorities within regional development and planning. The institute shall be proactive in aiding government in actualizing its regional policy. The Regional Development Institute of Iceland has a highly educated staff. Its headquarters are located in the town Sauðárkrókur, North–West Iceland.

1.3.3 Icelandic Building Research Institute

The Icelandic Building Research Institute is responsible for advancing research within structural engineering of building materials and components. Its main scope of work is within the field of cement and compatibility problems between cement and other building materials. The Icelandic Building Research Institute is also responsible for approving certification of construction products in compliance with Icelandic and European standards and regulations.

The staff of the Icelandic Building Research Institute is mainly educated within the field of engineering and chemistry. The institute's headquarters are located in the capital Reykjavik.

1.3.4 Historical background: plans for merger

These three organizations were all included in a legislative bill put forward by the minister of industry and commerce in November 2006. The bill proposed the establishment of a new organization responsible for the government's official support for technological research, economic- and rural development as well as being responsible for supporting innovation and start-up businesses. The new organization would be named Innovation Centre Iceland.

2 Theory of organizational change

2.1 Environments determine change

Reform initiatives have swept through the public sector and voices claiming governmental organizations can learn from the private sector have, since the 1980s, been firmly established through *New Public Management*. Seeking enhanced efficiency, public organizations are encouraged to engage in cost-cutting while at the same time increasing their operational capacity. It is therefore no revelation that managers within the public sector are increasingly subjected to the increasing pressures of managing their organizations (Christensen & Lægred, 2002, pp. 15−16).

The difference between the sectors is highlighted in the literature. Fernandez & Rainey (2006, p. 168) assert that journals on public administration are much less likely to include articles on "organizational change" or similar topics than research journals that focus on general management or organizational theory. Some would argue that this indicates a difference in susceptibility to change initiatives and that public organizations are less susceptible to change initiatives. This overlooks the overwhelming similarities of the two sectors. Commercial firms and public organization are to a great extent homogenous when it comes to structure and the workings of their inner social systems. Both ultimately function within a social and environmental setting.

Organizational theory fully acknowledges this and sees organizations as affected by environments, stressing significance on differing types of technical and institutional environments (Meyer, 1994, p. 28).

> "In modern societies, the elements of rationalized formal structure are deeply ingrained in, and reflect, widespread understandings of social reality. Many of the positions, policies, programs and procedures of modern organizations are enforced by public opinion, by the views of important constituents, by knowledge legitimated through the educational system, by social prestige, by the laws and by definitions of negligence and prudence used by the courts" (Meyer & Rowan, 1991, p. 44).

7

Asserting that environments are directly involved in formal organizations is by default positioning them within social ideologies and making them susceptible to a much wider description (Jepperson & Meyer, 1991, p. 205).

Arguing for the need for a comprehensive framework for organizational change Dexter Dunphy (1996) takes an example of two change models when he highlights the differing relationships organizations have to their environments. The two models Dunphy refers to are; *Socio-technical systems change model* and *Strategic change model*. The differing approaches these models have can be seen with regards to their "analytical framework" and their "ideal model" of a well functioning organization. Within the Socio-technical systems change model an analytical framework centers around participant involvement in organizational redesign whereas the ideal organizational model is seen as a representative democratic community composed of semi-autonomous works groups. Within the Strategic Change model, on the other hand, an analytical framework centers on an analysis of key environmental contingency factors whereas the ideal organizational model is a highly efficient, effective and productive workforce committed to the strategic direction of the organization (Dunphy, 1996, pp. 542−543).

The differences in these two approaches are apparent when comparing the ideal organizational model. Key groups within the workforce should have initiative for the direction of change according to the Socio-technical approach. In the strategic approach, senior management or other relevant authority determines change goals by analyzing external environments in an effort to create a competitive strategy (Dunphy, 1996, p. 544).

When it comes to implementing organizational change the focus is often internalized, making the procedure of transformation appear as an introspective management exercise. This results not necessarily in forgetting the importance of environmental factors but in highlighting the significance of employees and organizational structure in dealing with change. As stated by Benjamin & Mabey: "…while the primary stimulus for change remains those forces in the external environment, the primary motivator for how change is accomplished resides with the people within the organization" (1993, p. 181).

Organizational change viewed in the light of it being a simple case of internal structural implementation, grounded on employee consensus and operational architecture, gives a very simplified picture. This picture can be understood in light of the importance of organizational structural design in deploying resources, and the overall emphasizes on organizations as output driven enterprises (Carnall, 2003, p. 38,51). One risk of this type of simplification is seen when overlooking the effects of the cultural change needed to

successfully change organizations (Meyerson & Martin, 1987, pp. 623−624). While at the same time it has been shown that taking organizational culture into consideration can be extremely difficult and can result in what Meyerson & Martin refer to as leading change by the help of cultural paradigms that: "draw attention to a distinct set of organizational processes and simultaneously blinds others" (Meyerson & Martin, 1987, p. 641).

In this thesis organizational change will be assessed using tools for measuring socio psychological constructs relevant during times of proposed re-structuring. However, in order to build a picture of the general application of organizational studies with regards to the task at hand the following chapters will try to establish the theoretical grounds for further analysis.

2.2 Theoretical foundations for change

The problem when defining change, as in so many other attempts to define constructs of the social sciences, is to aim wide enough to capture the theoretical foundation without losing aim, wondering off, only to loose understanding and clarity. It is with this in mind that this chapter sets out to introduce three fundamental, and reoccurring theoretical foundations of change; the *Individual Perspective school*, *Group Dynamic school* and the *Open System school*. These three schools make up a typology or levels where change takes place; firstly at the individual level, secondly at the group level and thirdly at the structural level. Although presented here as distinct these three schools are by no means exhaustive, but all fall into a broader analysis of interconnectedness of organizational levels as found in system dynamics. An interconnectedness that forms complex systems of dynamic relationships (Coghlan & Rashford, 2006, pp. 26−27).

At the outset it must be noted that the Individual Perspective school is only shortly introduced, as it is only marginally relevant for the analysis. As a theoretical foundation for change, however, the main focus will be on group dynamics and organizations as open ystems.

2.2.1 Individual Perspective school

Organizational change is most often driven by economic pressures, making the emotional elements frequently considered unimportant. However, the results of neglecting employees

and the role they play in the success of change processes is sited, by managers reflecting on failed change programs, as one of the most significant reasons for failure (Callan, 1993).

It is often argued that organizational change will be a hapless endeavor without the participation and commitment of individuals, however the focus on individuals within organizational studies is almost exclusive to psychological or social psychological research (e.g. Neale et al., 2006, pp. 485−487). In order for change to occur in any type of organizational setting individuals must change. Individuals must think differently and do things differently. This individual implication therefore makes organizational change intrinsically personal.

Katz and Kahn (1978) explored individual approaches to organizational change and explained that it is difficult to account for the difference between roles and norms that exist within organizations and the behavior employees exert because of personal values alone. Short-term change in behavior, they say, is often easily achievable, resulting in some minimum temporary benefit while change in the long term is much more difficult.

Addressing the subject of change in *Organizational Development* (OD), Porras and Robertson (1987, p. 39) identify it as being either individual's behavior or the organization's effectiveness, further asserting that individual behavior is the key to improved organizational behavior.

Following Burnes (2004b, pp. 261−262) the supporters of the Individual Perspective school can be arranged into two schools; the *Behaviorist* and the *Gestalt-Field.* Within the Behaviorist school individuals are seen as conditioned students of behavior. Conditioned by expected consequences, behavior modification involves manipulation of stimuli. The Gestalt school however sees learning as a process wherein individuals gain and change insight. The difference between the two schools can be summed up in that the Gestalt school sees behavior not only as a product of external stimuli but as a thought process involving understanding and a conscious will to change (e.g., Skinner, 1974; French & Bell, 1984).

This approach to change is the foundation of the *Culture-Excellence school* which recommends both strong individual incentive and internal reflection.

> For proponents of Culture-Excellence, the world is essentially an ambiguous place where detailed plans are not possible and flexibility is essential. Instead of close supervision and strict rules, organizational objectives need to be promoted by loose controls, based on shared values

and culture, and pursued through empowered employees using their own initiative (Burnes, 2004a, p. 988).

Before leaving this perspective, it must be noted that a combination of external stimuli as well as the promotion of dialogue has been influential in change management. This perspective has been advocated by the *Human Relation movement,* which also stresses the importance of groups in acquiring organizational change.

2.2.2 Group Dynamic school: Three-step model of change

The Group Dynamic school originates with the classic work of Kurt Lewin (1890−1947) and sees organizational change as a group- rather than an individual process. The main rationale being that people in organizations tend to work *in groups* rather than only *as individuals.*

In his work on group dynamics Kurt Lewin is concerned with two basic questions. Firstly, what is it within the characteristics of groups that makes them behave or respond as they do, to the forces that affect them. Secondly, in what way is it possible to alter these forces so that behavior is reaffirmed in a desirable form (Burnes, 2004a, p. 982).

Lewin suggests that group behavior is an intricate set of symbolic interactions that affect individuals. Therefore he argues that individual behavior is a consequence of group environments, to which he refers to as environmental "fields" (Burnes, 2004a, p. 263). If it is possible to understand, identify and map these fields then it is achievable to recognize what elements of the environment need to be altered in order to bring about change, maintaining that it is to no consequence changing the behavior of individuals solely because individuals in isolation are constrained by the pressures of conforming to groups (Burnes, 2004b, pp. 981−982).

Lewin had a broader approach to change than has often been reported (i.e., Kanter, 1992, p. 10). Seen as change-intervention focusing on the interplay between groups and individuals, Lewin's ideas of group involvement have been successfully used to promote change on many different levels (Bass, 1990, p. 261). As pointed out by Burnes: "Lewin's work stemmed from his concern to find an effective approach to resolving social conflict through changing group behaviour (whether these conflicts be at the group, organizational or societal level)" (2004a, p. 995), always considering learning and involvement as the key for achieving behavioral change.

The Group Dynamic school identifies groups as never being in a state of equilibrium, but continuously in mutual adaptation with its environment (its forces). Lewin believed that stability of behavior was based on "quasi-stationary equilibrium" supported by both restraining and driving forces (Burnes, 2004b, p. 274). This can be further explained using the elementary example Kurt Lewin gives of racial discrimination: The interests of certain social forces, for example sections of white people, are a driving force for discrimination. At the same time other social forces, the interests of a colored population, will rebel against discrimination. If these two groups are set up against each other, in a given situation their opposing forces create a drive and pull effect, resulting in an outcome of quasi-stationary equilibrium. If we use "f_A" to represent white people's discriminatory force and "f_B" to represent colored people anti- discriminatory force, the following applies: (Lewin, 1997, p. 311).

$$f_A + f_B = 0$$

The equation does not determine the relative power of neither group f_A nor group f_B, instead it must be looked at as a one-time "measurement" of power relation affecting discrimination. The strength of f_A can increase or decline without altering the level of discrimination. As long as some elements of f_B is present so is the quasi-stationary equilibrium. For actual change to occur the forces have to be altered under highly complex psychological conditions. This is because, as is often the case, if one solely adds a driving force an immediate counterforce is produced to maintain the equilibrium and vice versa.

Understanding these forces as well as the inter-dynamics of groups is only helpful to a certain degree. Lewin recognized that in order for people to be engaged in and committed to changing their behavior a special process was needed. It is with this in mind that he developed the *Three-step model of change*.

Hendry (1996, p. 624) arguing for the significance of the three-step model and its contribution to organizational change says that one can "[s]cratch any account of creating and managing change and the idea that change is a three-stage process which necessarily begins with a process of unfreezing will not be far from the surface" .

The model consists of phases within the change process, each presenting its own challenges and objective for the organization. (cf. Lewin, 1997; Jacobsen, 2006, p. 268; Burnes, 2004b, pp. 274–275, 315; Senior, 2002, pp. 308–309; Schein, 1999, pp. 60–61). In

Table 2.1 the three processes are described as being; unfreezing, moving (changing) and refreezing:

Table 2.1 Stages of organizational change

	Unfreezing	**Moving (changing)**	**Refreezing**
Organizations objective:	Making the organization ready, preparing rationale	Developing momentum, changes in structure	Reinforcing change, institutionalization
Organizations activities:	Assembling resources, planning structures, training and explaining, collecting data	Monitoring impact, fine tuning and implementation	Rewarding success and communicating achievement

Unfreezing

"To break open the shell of complacency and self-righteousness it is sometimes necessary to bring about an emotional stir up" (Lewin, 1997, p. 330).

The first phase of organizational change involves breaking up the above mentioned equilibrium. This has to be done because new behavior can not be implemented before old behavior is unlearned. The influential Edgar H. Schein (1999) argues for a three stage process within unfreezing involving ways to accept change interventions. First is creating a *disconfirmation* with the status quo, so that one feels that nonparticipation in changing a system would result in its failure and ultimately personal loss. Secondly, a generation of *survival anxiety* that represents an acceptance of data showing current systems as inadequate. This involves not letting typical defensive feelings hinder admittance of an unsatisfactory status. Thirdly, Schein argues for creating *psychological safety,* without which "disconfirming information will be denied or in other ways defended against, no survival anxiety will be felt and consequently, no change will take place" (Schein, 1999, p. 61).

Moving (change)

Unfreezing can not be considered as an end, rather it is a means or preparation for the change itself. Moving is what Lewin refers to as the notion of change-realization, the establishment of new strategies and structure. The actual use of the term "moving" in Lewin's work has

13

been exchanged in the literature of change management for the simple term "change" (Klein, 1996, p. 33).

Lewin's understanding of moving is best described as relating to the equation for the quasi-stationary equilibrium. It is the understanding that the equilibrium is only moved if the restraining forces are re-moved. The moving of the equilibrium is hindered because of the ramifications of the restraining forces, therefore emphasizing the importance of the first step in creating and implementing change. However, there is an essential recognition that without considerable reinforcement the change (the move) will be short lived, calling for the last phase in the three-step model.

Refreezing

The final phase in the change process is called refreezing and entails institutionalizing the changes made. Securing that moving the equilibrium does not go wrong requires employees to demonstrate commitment to the new structures or processes. This presents the problem that new behavior must be concurrent with personal behavior of the change-participants (Schein, 1999. p. 63). The new behavior must be identified as the "only way to do things" so as not to set off a new round of disconfirmation, which in turn can result in "unlearning" or as stated by Weick & Quinn: "[r]efreezing that embeds the new behavior and forestalls relapse is most likely to occur when the behavior fits both the personality of the target and the relational expectations of the target's social network [the group]" (1999, p. 372).

This framework for change presents a simplified picture widely criticized for not taking into account the instability of organizational environments. However it must be recognized that even though it simplifies, it gives organizations a point of departure arguably lacking in most theoretical approaches to change.

2.2.3 Open System school and change

It was stated earlier that the formal definitions of organizations are problematic because of their complexity and diversity. Although sometimes contrary and abstract, when put together, they aspire to provide a means of capturing the breadth of organizational life (Baum & Rowley, 2005, p. 2). After having briefly examined the role of individuals, groups and their relation to change, it is relevant to look at the organization in its entirety and as a primary point of reference.

Richard Scott (2003, pp. 25−29) sees organizations as falling within three spectrums or definitions of how they can be conceptualized. Each definition underlines a specific enduring feature that distinguishes organizations from other types of institutionalized collectivities. These definitions are revealed in terms of three systems:

- *Rational system*: organizations are purposeful collectivities, pursuing specific and clearly defined goals. Their collectivity is bound by structural formalization making role relations independent of personal attributes (Scott, 2003, pp. 26−28).

- *Natural system*: organizations are collectivities in which participants share a common interest in the survival of the system. In order to secure the system's survival participants engage in structured collective activities bound by informal, moral and non-rational cooperation (Scott, 2003, pp. 27–28, 57−59; Baum & Rowley, 2005, p. 2).

- *Open system*: organizations are collectivities of interdependent activities linking a continually shifting coalition of participants. Dependent on a flow of resources, personnel and information, organizations are shaped and supported by external elements. Organizations are built by a variety of contributing participants which can have multiple loyalties but at the same time contribute to continuous adaptation of structural templates (Scott, 2003, pp. 29, 82−84, 88−91; Baum & Rowley, 2005, p. 3).

Inspired by general system theory and cybernetics the open system approach sees organizations as systems of multiple internal relationships, as well as participants of the encompassing environments in which they operate. Within the Open System school organizations are seen as a compilation of a number of interconnected sub-systems that work in coordination, and becomes what Baum and Rowley (2005, p. 6) refer to as: "…a throughput model, obtaining resources from the environment, processing them and distributing them back to the environment."

It follows that an open system approach to management has the objective to structure the functions of the organization in such a way as to define certain lines of coordination and sub-system interdependence. Only if this is successful can the organization's objectives be pursued (Burnes, 2004b, p. 265).

In order to further understand what is meant by the term "sub-systems", Miller (1967) suggests that organizations can be seen as composed of four principal organizational sub-systems:

- *Organizational goal and value sub-system*: In order to secure efficient operation an organization must have goals and values that do not contradict internal and external environmental expectations. Goals and values can be viewed as an organization's objective and the work culture needed to pursue them.

- *Technical sub-system*: The specific combination of knowledge, technologies and techniques needed in order for organizations to function.

- *Psychological sub-system*: The organization's culture and climate, its role relationships, norms, values and whatever else considered essential for creating and withholding a sense of "organizational bond".

- *Managerial sub-system*: This is the sub-system that is responsible for directing an organization towards its objectives. This includes a number of responsibilities such as; determining values, setting goals, developing strategy, designing structure and establishing control processes.

Not comprising of a single practical approach to managing organizational change, the open system approach however presents a framework for analyzing the complexity and interconnectivity of sub-systems involved when systems change, the sub-systems relation to environments and the effects small changes can have on larger organizational structure.

This framework for change analysis rests on the general view of the open system theory which regards organizations as capable of continuously changing their structural form to respond to environments, resulting in a problem Richard Scott describes in the words: "researchers who study organizations over time have difficulty determining when units they are studying are the same organizations with reorganized structures and when they represent the birth of new organizations" (Scott, 2003, p. 91).

2.3 The dichotomy of organizational change

Discussing the lack of clarity within the field of organizational change Van de Ven and Poole (1995, p. 510) say that the excess and diversity in theoretical applications has created a situation best described as "theoretical pluralism". In addition to the theoretical diversity it seems that still today, "relatively little effort has been devoted to the task of empirically validating, such theoretical models" (Robertson et al., 1993, p. 619).

In an interdisciplinary literary review on the subject of change Van de Ven and Poole (1995, pp. 510−519) introduce the use of four basic theories to explain how changes occur in social entities. Separated analytically they present differing developmental reasons for why and how organizations change; *life cycle theory*: change thought of in terms of long term growth or maturation. *Teleological theory* (vision): change as being driven by a common goal and the necessary steps needed to acquire these goals. *Dialectical theory*: change seen as reaction to contradiction evoked by differing forces and tension and finally *evolution theory*: change thought of as changes in systems in order to react sustainability to changing environmental regulation. All four theories of change can broadly be summarized as presenting *two main types of reaction* to environment, either an immediate- or a gradual reaction.

It is beyond the scope of this thesis to summarize the literature on different approaches to organizational change. These approaches, as has already been implied, are grounded on differing interpretations of organizational, contextual and environmental pressures, carrying differing consequences at personal, group and structural (system and sub-

system) levels. Rather an attempt will be made to bring to light a recurring description of organizational change as happening on a continuum of either large scale- or a small scale. The reach of change initiatives on this continuum can best be described as relating to two general types of change; firstly *continuous change* and secondly *radical change*.

Small scale   Large scale

Continuous change   Radical change
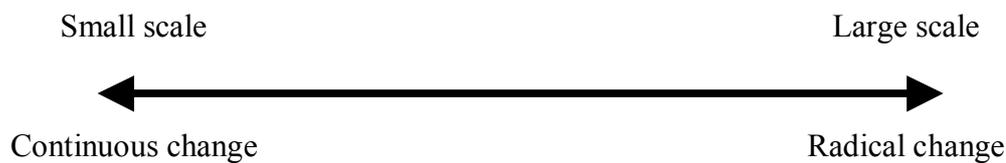
Figure 2.1 Continuous/radical change continuum
Source: adapted from Burnes, B. (2005b p. 323)

Burnes argues that almost all writers on organizational change view it as "running along a continuum from incremental [continuous] to transformational [radical]" (2005b, p. 323). This view is further strengthened by the notion that incremental change is seen as isolated and less important, whereas transformational change is seen as strategic and more important. The following examples adhere to this categorization.

In discussing ways to implement major corporate transformations Kanter et al. (1992, pp. 492–495) suggest two approaches. First by employing bold strokes (radical) where big strategic decisions have to be made in order to maintain competitive advantage. Secondly, what is referred to as a long march (continuous) where development is best served with gradual modifications throughout organizations.

Simmilar to Kanter et al., Beer and Nohria (2000) have identified two archetypes of organizational change, particularly relevant for market driven corporations. *Theory E* (radical) calls for maximum shareholder value, with subsequent proactive adaptive measures. *Theory O* (continuous) on the other hand calls for a focus on culture and human resources. Acknowledging that one theory can aspire to exclude the other, a combination of both Theory E and O (a strategic positioning within the radical/continuous continuum) is said to work best to secure organizational survival (Jacobsen, 2006, pp.185–186,197−198; Burnes, 2005b, p. 322).
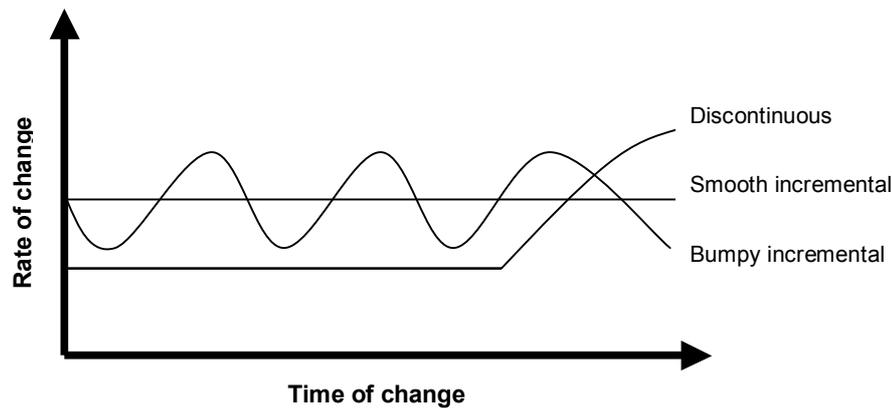
Figure 2.2 Major types of change
Source: adapted from Grundy, T. (1993) sited in Senior, B. (2002, p. 38.)

Barbara Senior (2002, pp. 37–39) draws on the work of Grundy (1993) and presents change as being either discontinuous (radical) or smooth- or bumpy incremental (continuous). Discontinuous change almost always involves new organizational structure, culture and strategy. Smooth incremental change does involve change but the amount of change stays the same, coinciding with the vertical axis in Figure 2.2 representing rate of- but not amount of change. Bumpy incremental change is characterized by relatively tranquil organizational environments which now and again are punctuated by acceleration or deceleration and a corresponding need for acceleration and deceleration of organizing. Grundy (1993, p. 24) compares this type of environmental sensitivity with continental drift "where the 'fault' enables periodic readjustment to occur without cataclysmic effect"

Finally a radical/continuous codification of change is seen in the review of Weick & Quinn (1999) in which they used a before mentioned template designed by Dexter Dunphy (1996) to analyze two types of change, distinct with regards to temporal differences. Weick & Quinn (1999, p. 365) maintain that the tempo of change is a "meaningful partition" and suggest the division of change as either "continuous" or "episodic" (radical).

Given the examples above the focus will now be set on further describing first continuous change and subsequently radical change.

19

2.3.1 Continuous change: The example of organizational development

When environments change, organizational adaptation can be in the form of incremental steps, and small adjustments aimed at hampering inefficiency and maintaining adequacy. These types of organizational change are often characterized by guided direction and aspiration towards long term goals, rather then a clear destination and shift in operation. Managing small-scale adaptation involves steering meaning rather than motive (Scott, 2005, p. 378). In the literature on organizational change this approach to changing is essentially associated with the practice of *Organizational Development* (OD) (Burnes, 2005b, p. 267).

Organizational Development is far from being a lucid concept within organizational studies. Many definitions appear in the literature, creating not only confusion as to its own clarity but also its distinction from other approaches to change. Some have stated that OD is a form of reactionary structural adaptations to environmental change "intended to change the beliefs attitudes, values and structures of organizations" (Bennis, 1969, p. 15). The way this can be done is by applying methods for diagnosing management, with the ultimate aim of pointing out faults and suggesting improvements. In their book *Organizational Development and change* authors Cummings & Worley (1997, p. 1) describe OD as:

> A process by which behavioural knowledge and practices are used to help
> organizations achieve greater effectiveness, including improved quality of
> life, increased productivity, and improved product and service quality. [...]
> The focus is on improving the organization's ability to assess and solve its
> own problems [italics added].

The significance of people in the organization is highlighted within the literature giving rise to a general perception that OD is a "soft" approach to change. OD is seen as an approach that looks away from Taylorism or scientific management, seeking employee approval and later the endorsement of change initiatives. This approach to change is grounded on the acknowledgement that people are social beings and that the essential element in change implementation rest on an interaction between workgroups and a larger social system. In turn these systems are the corner stones of organizations capability to learn and change (Senior, 2002, pp. 302−303).

The importance of individuals and their interaction with workgroups underlines a major characteristic of OD; that it sees organizations as systems capable of gradual improvements, given that collaboration exists within these systems. Organizational change is facilitated by OD in the way of penetrating processes on one stage and thus effecting, hopefully benefiting, other parts of the system. This brings OD on par with looking at organizational systems as both: "formal organizational structures and processes, as well as more informal aspects of organizational life such as culture, politics and styles of leadership which are closely bound up with the values and attitudes people bring to their workplace" (Senior, 2002, p. 304).

It is this predominance of employees that sees OD literature inadvertently more focused on internal objectives, being to name a few; a lack of status-differential, sharing of responsibility, expression of feelings and needs, open constructed conflict, flexible leadership, involvement and trust (Carnall, 2005, pp. 119−120). However these types of objectives are highly commendable, they become little more than human resource goals if not accompanied by meaningful strategy and process-outcome orientation. If process intervention is not followed by a change to organization's system and structure, then often little is achieved (Beer & Walton, 1990, p. 157).

2.3.2 Radical Change

Whereas continuous change is convergent and seen, in the case of OD, to focus on employees and internal objectives, radical change is centered on acquiring structural adaptation based on strategic objectives. Variously named; transformational, discontinuous, revolutionary or episodic the term radical change is referred to here as any change that is organization-wide and characterized by radical shifts, not only in structure but in strategy and vision purpose.

Studies have shown that implementation of new technologies are more successful when accompanied by more radical changes in structure at the same time. Dougherty & Cohen conclude that: "[p]iecemeal tweaks and incremental shifts […] are not enough. Managers need to grab the configuration and shift it all at once" (1995, p. 100). Radical change for introduction of new production technology is arguably rational. When adapting to external environments or when seeking legitimacy the argument becomes more distorted. Hannan & Freeman conclude that changing core features can cause threat to survival. They argue that even when attempting to reduce the risk of failure, by aligning with its

environment, organizations are exposed to "increased short run risk of failure" (1984, p. 160).

Radical change often involves major uncertainty; the consequences of different alternatives are difficult to assess and analysis may breed doubt and in some cases sense of paralysis. An important change requires a leap of faith into the unfamiliar. Radical change alters perspectives and calls for wide mobilization. This involves active collaboration among employees that goes beyond compliance or simple agreement. The main challenge for organizations is often not a problem of choosing cognitively but of taking organized action (Brunsson, 1982, pp. 36−42).

Radical change does not only cause redistribution of resources and power, which is upsetting in itself, but, by definition, demands a paradigm shift that challenge the most basic assumptions about the identity of organizations and employees. Challenging the socially constructed identity of employees can be viewed as an attack their own identity and thus result in strong defense mechanisms, such as resistance to change or resignation (Huy, 1999, p. 332). It is this relationship between organizational change and the emotions of employees that will subsequently be the focus of the following chapters.

3 Developing the hypotheses

3.1 Principal constructs of measures and questionnaire items

The objective of this thesis is to investigate the effects of organizational change on employees. This is done through looking at the relationship between social psychological constructs of interest during foreseen organizational restructuring with a special emphasis on change readiness. Change readiness is then investigated, especially as it relates to the attitudes of Executive Managers, and how or if it differs among organizations foreseeing radical rather then incremental change.

In the preceding chapters organizational change has been explained and discussed in terms of theory and its relevance to organization studies. It has been explained that organizational change initiatives in general involve implementation and adoption of change initiatives at the individual and group level. Thus, the organizational-level change processes essentially involve group and the individual change processes.

The purpose of the following chapter is to examine certain aspects of organizations work environment and how they may help to explain some of the processes at work in organizations, in order to ultimately make clearer what effects employee readiness or acceptance regarding change initiatives. The four principal constructs discussed here are; *job satisfaction*, *organizational uncertainty*, *organizational commitment* and *change readiness*.

3.1.1 Job satisfaction

Job satisfaction is thought to explain various behaviors of employees and can be defined in terms of their "emotional state resulting from perceived work environment" (Nystedt et al. 1999, p. 49).

If employees feel badly treated or unhappy in the workplace they are more likely to reveal their discontent to subjects outside the organization. This can have a devastating effect on organizations reputation. Dissatisfaction increases the possibility that employees will negatively adjust the quantity and quality of their inputs (Ichniowski, 1986, p. 80). Research has also shown that employees who believe management is unsupportive of quality and

customer service are likely to be less satisfied with their organization (Walsh & Deery, 2006, p. 575).

In the popular literature on management, job satisfaction has gone a long way to claim acknowledgment for increasing performance (Worren et al., 1999, p. 279). Anyone aware of the trends within management literature has seen the relative importance of job satisfaction especially in relation to *Human Resource Management* (HRM). HRM has been critiqued because of an over-emphasis on job satisfaction, were increased productivity is attempted though, more than anything else, satisfying employee needs and wants (Petty et al., 1984, p. 712). However studies within production engineering have seen a predicament described by Klein (1996, p. 33) in where he proclaims that an increase in productivity can simultaneously decrease job satisfaction. This does suggest a precarious relationship between job satisfaction and performance or productivity.

Low levels of job satisfaction affects employee turnover. Low levels of job satisfaction, combined with high turnover, can act to weaken relationships with other organizations and customers. Consequently high employee turnover has been correlated to high customer turnover (Heskett et al., 1997). The inability to build a stable workforce can deprive an organization of accumulated knowledge (Batt, 2002, pp. 594–596). As Batt (2002, p. 588) describes: "customer-contact employees manage the boundary between the firm and its customers". Therefore creating and sustaining employee satisfaction within organizations is central to areas of job design. Maintaining job satisfaction should be an indistinguishable part of this design.

When employees are given an opportunity to advance within their occupation, stable work environments will ideally lead to job satisfaction (Curry, 2003, pp. 567−568). However, research does suggest that employees that perceive themselves as having moderate to great levels of intergroup permeability show greater levels of job satisfaction (Terry et al., 2001, pp. 272−273). This would indicate, contrary to conventional opinion, that job satisfaction involves having a stable work environment but at the same time demands to perform in intergroup environments. The same study (Terry et. al., 2001) does however indicate a stark difference of intergroup permeability based on level of status, suggesting that high level-status groups have higher levels of job satisfaction because of increased adaptability and more opportunity to advance within new intergroup interaction. Taken further, this provides indication that low-level status groups are less able to adjust to mergers and organizational change (Terry et al., 2001, pp. 275−276). This would suggest, as described by Sias & Wyers (2001, p. 551), that employee socialization is very important to

employee development within organizations and is firmly associated with lower employee turnover.

Researching the effects of restructuring on employees within organizations Probst (2003) reveals that restructuring has negative effects on levels of job security, organizational commitment and increases employee turnover. However job satisfaction was less consistently noted as being affected by plans of restructuring. This indicates that optimal organizational transition procedures can include ways to deter decreasing levels of job satisfaction. Probst (2003, p. 434) does however report that employees who are affected by restructuring do report considerably lower levels of job satisfaction following organizational change than employees who are not affected by the changes.

In an attempt to measure job satisfaction of employees in organizations facing a proposed merger the following questionnaire items were used. The items are adapted from Brooke et al. (1988).

Table 3.1 Survey questionnaire items measuring job satisfaction

---

Items for measuring job satisfaction (js)

- I am satisfied with my job

- I am satisfied with my supervisor

- I am satisfied with my colleagues

- I am satisfied with my place of work, the moral is good

- I am unhappy with my salary (R[*])

- My job measures up to the sort of job I wanted when I took it

[*]Note item was reversed before analysis

On the basis of the preceding discussion and assuming that questionnaire items will produce measures after data reduction the following is hypothesized: H[1] *employees that report high levels of job satisfaction report higher levels of change readiness, than those that report low levels of job satisfaction.*

3.1.2 Organizational uncertainty

> An inevitable consequence of change is the replacement of a predictable and certain environment with one that is uncertain and ambiguous (Olson & Tetrick, 1988, p. 374).

It is well established that organizational change and pressures of discontinuity create uncertainty and threats to employees' well being (Terry et al., 2001, pp. 267−270).

Often the problem of implementing change is discussed in terms of employee resistance to change. It is held true that to successfully change organizations first all resistance needs to be addressed. As one can see in the chapter on *change readiness* the situation is more complex. A vital part of change implementation involves addressing the issue of uncertainty. Uncertainty can be defined as: „ [the] degree of doubt, unpredictability and ambiguity that exists in any situation" (Burnes, 2004, p. 606).

The level of organizational uncertainty is described by Ansoff & McDonnell (1990) as five types of environmental turbulence. The five types of environmental turbulence are:

- *Predictable.* A stable and repetitive environment where challenges are met and change is slower then the ability of employees to adapt.
- *Forecastable by extrapolation.* Increased environmental complexity but managers and staff can foresee solutions.
- *Predictable threats and opportunities.* Organizations' ability to respond to increased complexity becomes more problematic.
- *Partially predictable opportunities.* Turbulence increases with an addition of global and political changes. The future of and for organizations is only partially predictable.
- *Unpredictable surprises.* Unexpected events further increase turbulence to a point that employees and organizations can not respond.

Organizations ability to perform within these levels of turbulence is only envisaged by organizational and employees responsiveness.

Colin Carnall, in his book *Managing Change in Organizations,* emphasizes the importance of addressing uncertainty in conjunction with technical implementation of adapting new organizational structures. When new strategy, a new product or new structure is introduced employees are often subjected to new roles and responsibilities. The question of whether or not this new role will be fitting to the current one can cause role strain, and is a major source of employee's anxiety, stress and uncertainty (Carnall, 2003, pp. 240−240).

A critical component of the emotional state associated with change is a sense of loss. In the initial stages, when little is known about the change initiative, people have limited knowledge of the proclaimed benefits. Sometimes the only thing that is certain is the knowledge of discontinuity. Therefore employees only know what they will lose, not what they will get (Buller, 1988, p. 43). It has been argued that change is sometimes imposed on employees who then have to adjust without objection (McHugh, 1997, p. 345). Therefore managers should be sensitive to this situation and the organization's emotional state simultaneously communicating the more technical implementation of adapting new structures.

In an attempt to measure uncertainty of employees in organizations facing a proposed merger the following questionnaire items were used. All items were design especially for the purpose of this study.

Table 3.2 Survey questionnaire items measuring uncertainty

Items for measuring uncertainty (unc)
• In my place of work, people feel uncertain regarding the future
• In my organization, there is a clear plan/vision for the future (R*)
• My job is secure in the future (R*)
• I don't know what my job will be in the future
• I feel uncertainty when discussing the future with clients
• It is impossible to predict the result of the merger
*Note item was reversed before analysis

On the basis of the preceding discussion and assuming that questionnaire items will produce measures after data reduction the following is hypothesized: H^2 *employees that report high*

levels of uncertainty report lower levels of change readiness, than those that report low level of uncertainty.

3.1.3 Organizational commitment

Organizational commitment has been defined as the psychological identification that employees have toward their employing organization (Bishop et al., 2005, p. 157). In the literature of organization studies there are various types of definition of the term. Common to most of them, if not all, is a concern for the relationship between employers and employees (Meyer & Allen, 1997, p. 6).

Three types of workplace related commitment are widely applied (e.g., Somers, 1995, pp. 49−58). These are; normative, affective and continuance commitment. Other types of commitment include support and team commitment (i.e. Bishop et al., 2005, p. 157). Commitment connects individuals "to a course of action that is of relevance to a particular target" (Meyer & Herscovitch, 2001. p. 301).

The construct as it is discussed in this thesis complies best to what Allen & Meyer (1990, p. 6) define as affective commitment. This is the definition most frequently used when describing employees' emotional attachment to organizations. Normative commitment on the other hand is based on acceptance of the organization's set of value and continuance commitment dimension is based on the notion that the costs of leaving the organization outweigh the opportunity costs of staying.

Taken further it is suggested that organizational commitment can serve as a definition that encompasses other types of commitment within the workplace. Morrow and McElroy (1993, p. 1) edited a special issue of the *Journal of Business Research* devoted entirely to workplace commitment. In their introduction they say: "organizational commitment is the most maturely developed of the work commitment family of constructs" and as such serves a fundamental level of analysis when investigating employee organizational relationships.

Widespread is also the conception that commitment relates to job turnover. Employees that are committed are held to be less likely to leave their organization (Allen & Meyer, 1990, p. 1) Empirical support has been found for negative correlation between organizational commitment and job turnover (e.g., Farakas & Tetrick, 1989).

With an increase in knowledge based work and an enlargement of a professional service sector, resent years have seen increased conflict between professional and

organizational loyalty. This has presented organizations with challenges in retaining bureaucratic means for control (Alversson, 2002, p. 624).

It is accepted that taken together different types of workplace commitment overlook possible discriminate validity. However, it serves the scope of this thesis well to conceptualize commitment as a distinct concept and at the same time acknowledging the importance of distinguish organizational commitment from other related constructs.

In an attempt to measure commitment of employees in organizations facing a proposed merger the following questionnaires items were used. All items are adapted from Allen & Meyer (1990).

Table 3.3 Survey questionnaire items measuring commitment

Items for measuring commitment (com)
• I enjoy discussing my organization with people outside it
• I really feel as if this organization's problems are my own
• I feel like part of the family at my organization
• This organization has a great deal of personal meaning for me
• I do not feel a strong sense of belonging to my organization (R[*])
[*] Note item was reversed before analysis

On the basis of the preceding discussion and assuming that questionnaire items will produce measures after data reduction the following is hypothesized: H[3] *employees that report low levels of organizational commitment report higher levels of change readiness, than those that report high levels of organizational commitment.*

3.1.4 Change readiness

It has been established that changes, both when intended and implemented, can bring about emotional commotion. It has also been described that organizational change has an effect on such work related to social and psychological constructs as; job satisfaction, levels of uncertainty and organizational commitment. In the propositions and hypothesis outlined in

the introduction it is proposed that these constructs should be investigated in relation to levels of so called "change readiness".

Major organizational changes often start slowly, are incrementally implemented and are subject to change as information is gathered. Certainly that is the method usually adopted by those who have an understanding in planned organizational change. This description of change implementation can be non-inclusive to employees at initial stages. Possibly only a fraction of the workforce will have knowledge of what is taking place. The ambiguity involved in such a work environment can be very stressful and eventually cause considerable resistance to change (Klein, 1996, pp. 32−35).

Van de Ven and Poole (1995) suggest four theories of change, life cycle- , teleology-, evolutionary- and dialectical theory. Each presents differing conceptual motors driving change. Within the *dialectical theory* of change resistance plays a pivotal role. The theory begins with the Hegelian assumption that organizations are best portrayed by two opposing internal forces. One entity has power to change (thesis) and the other is determined by its means to resist change (antithesis).
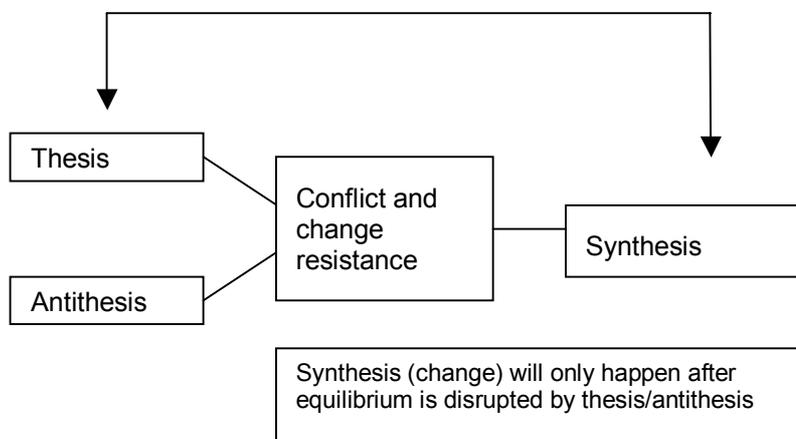
Figure 3.1 Change by equilibrium disruption
Source: adapted from Klein (1996)

For change to happen in the way that management desires, conflict must be resolved so organizational members' attitude and cognition aligns with those of management, termed

dialectical change by Van de Ven & Poole (1995, p. 517). In essence, a state of readiness must be created.

Armenakis et al. (1993) have proposed a model for creating organizational readiness. They suggest that readiness is an important precursor of resistance to change and the adoption of employees. In the model one of the most important steps is assessment (Holt et al., 2007, p. 233). Assessment is proposed, to determine just how ready for change employees are, before organizational changes are implemented. Armenakis et al. (1993, pp. 670−672) stress the importance of adapting methodology appropriately to capture the dynamic environment often associated with change. Qualitative techniques are more necessary in fluid, dynamic contexts, where interviewing managers and opinion leaders within the organization is a vital part of the assessment. Identifying and tracking rumors may also help clarify trends that appear in survey data.

Although Armenakis et al. suggests the importance of reaffirming the concept "change readiness" in the literature on organizational change, much of the popular literature does not make a clear distinction between creating change readiness and averting resistance to change (cf. Kotter, 1996).

In an attempt to measure change readiness in organizations facing a proposed merger the following questionnaires items were used. All items are adapted from Holt et al. (2007).

Table 3.4 Survey questionnaire items measuring change readiness

Items for measuring change readiness (cr)
• The program or area in which I work functions well and does not have any aspects that need changing (R*)
• There is nothing I need to change about the way I do my job to be more efficient (R*)
• I will resist any changes to the program or area in which I work (R*)
• I look forward to be involved in changing the program or area in which I work
• I will work hard to make the merger successful
• I feel optimistic that the proposed merger will be successful
* Note item was reversed before analysis

The next chapter discusses the methodology adapted in this thesis and issues regarding sampling, measures and procedure. This is done before continuing to present the results of data reduction for the questionnaire items, subsequently testing for correlation and exploring the hypotheses.

4 Methodology

4.1 The methodology adopted – attempting triangulation

In the introduction to the thesis the main propositions and hypothesis were established in light of the proposed objectives. In this chapter the methodology used to gather data is introduced and explained. Obviously the scope of the thesis can not entail delineation of the general application of the methods chosen. Rather the research methodology is discussed as it concerns the measurement of constructs, sample and research settings.

A fundamental methodological issue is the attempt to approach the subject using both quantitative and qualitative methods. There is a distinct tradition in social science research that advocates the use of multiple methods. Such methods are variously named; multitrait, multimethod, convergent validation and indeed triangulation (Jick, 1979, p. 602). The names used to describe the use of more than one method in social science has caused a problem of nomenclature. This has resulted in what Tashakkori & Teddlie have referred to as triangulation having too many different meanings making it hard to describe in terms of a consistent approach within social science (2003, p. 14).

Recently however the term *triangulation* has been widely adapted and it is used to encompass the general method of combining two or more research methods when examining the same phenomena. It is defined by Brewer & Hunter (1989, p. 17) as "the use of two or more different measures of the same variable [and as such] can strengthen measurement considerably". When similar results are achieved with different methods, i.e. using a questionnaire (survey research) and interviews (qualitative research) we should feel more confident in the validity of our measurement. Similarly if results diverge when we use more than one method it is a strong indication that measures are influenced by greater measurement error than we should tolerate (Schutt, 2006, pp. 109−111).

Although qualitative methods give very rich change-specific information quantitative methods are an appropriate addition, offering unique advantages for researchers in certain settings (Holt et al., 2007, p. 233).

The use of more then one method becomes even more pertinent in light of the limitations set by the scope of this particular study. Availability sampling was used by the researcher to select subjects. The use of availability sampling, in this study, causes a greater

than usual risk of getting respondents from the same background, thus creating a possibility of measurement error. Research has also revealed a tendency for people to answer questions in a socially desirable way (Hadaway et. al., 1993, p. 750). In the case of this study one might argue that employees would answers question regarding the success of organizational merger in a positive way due to a feeling of intervention on behalf of the researcher. The same problem persists in the qualitative part of the study. The Executive Managers could attempt to describe the attitudes of employees and the organization as positive. Using both interviews with managers and a survey questionnaire among employees, a serious attempt is made to correct for the problems of measurement error.

4.2 Survey sample

The issues of generalizeability in all quantitative studies are inevitably linked to the quality of the sample taken. Issues regarding sampling are discussed here with regards to objectives as stated before.

Only employees of the three merging organizations were eligible for receiving the survey questionnaire. A list of employees at work during the days of survey administration was available for all three organizations. This means that the elements for the possible sample were well known and could be based on good knowledge about the sampling frame. Due to the small size of the organizations in the study it was also possible to hinder elements outside the sampling frame from participation.

The study had three primary sampling units. The number of sampling elements within each unit corresponds to the actual number of employees within the organization. Rather than defining the population as the number of all employees employed within the three organizations, the total of the population is equal to all attending work in the days of administration. The sample components are described in the diagram on the following page, in Figure 4.1.
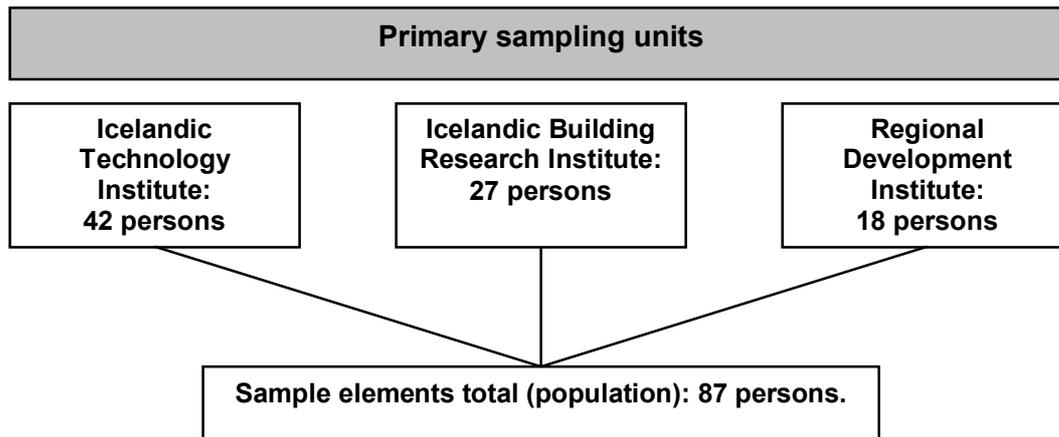
Figure 4.1 Primary sampling units

All respondents confirm to the designated set of specifications, described above. Hence the sample aspired to be a population sample using availability sampling.

4.2.1 Response rate

The response rate is specific to the type of sampling used and the need to acquire sampling probability within such a small population. Sometimes a sample design will use screening to find members of the sample that do not match the population studied. This was not needed in this study, wherein all employees at work correspond to the reservation made for the sampling frame (Fowler, 2002, p. 40).

It is obvious, derived from the use of the three sampling units, that the population is divided into mutually exclusive segments equivalent to three stratums. However, when taken together they make up the population under investigation, being employees of a governmental organization facing merger and subsequently a need for change.

The parameter of the response rate, in light of the primary sampling units discussed above, is outlined in Table 4.1 on the following page.

Table 4.1 Response rate: sampling units and total

	Icelandic Technology Institute	Icelandic Building Research institute	Regional Development Institute	Total
Employees	42	27	18	87
Respondents	38	22	17	77
Total in %	90.4%	81.5%	94.5%	88.5%

As seen in Table 4.1 the total response rate from all sampling units is 88.5% which should be regarded as a good response rate.

4.2.2 A note on non-response

The effects of non-response on results estimates depend on two things in particular. Firstly the effects depend on the actual response rate, consequently the size of the sample not responding. Although there is no agreed standard of a minimum response rate Fowler (2002, p. 42) suggests that a common minimum should be in the region of 75%. The second effect of non-response on results estimates is derived from the first and suggest that sample element that do not participate create a serious hazard for social research. This is because non-respondents are likely to be systematically different from those that do take the time to participate in surveys (Schutt, 2006, p. 141). Furthermore, research has shown that people who are particularly interested in the subject matter under investigation are more likely to participate, or return a questionnaire. This typically indicates the possibility of non respondents biasing estimates.

If knowledge does exist about those within the sample that do not respond, it is important to present information about their characteristics. However, in light of the scope of this study and the risk of negative intervention such information is not enquired in this study.

4.3 Interviewees

Subjects were chosen for interviews based on purposive sampling. In purposive sampling one or more predefined groups or characteristics are required. In this study the expertise and opinions of the Executive Managers were sought after.

The three managers were interviewed because of their in-depth knowledge about the proposed merger, as well as their knowledge ascertaining organizational structure and possible problems regarding smooth translation of these structures into a new proposed organization. Managers were interviewed especially in order to investigate their relationship to the merger as well as their knowledge about employees' outlook. This is in line with the objectives of the study; to investigate the relationship between change readiness and the three organizations, as outlines in the before stated propositions.

With a purposive sample, it is very likely that opinions of the target, the managers, outweigh those of subgroups. In the case of this study a difference of opinions between managers on the one hand and employees on the other were anticipated and interpreted.

4.4 Procedure

After having chosen an appropriate case for investigation in December 2006, measures were taken in order to get permission from The Icelandic Data Protection Authority (IDPA) in accordance with Act no. 77/2000 on the protection of privacy as regards the processing of personal data. The IDPA did not make requirements for revisions of a draft survey questionnaire, nor the purpose of the interviews, thus judging it in accordance with Act 77/2000 and not needing further ruling on its behalf.

Before approaching the organization concerned, permission was acquired from the Ministry of Industry and Commerce (now Ministry of Industry, Energy and Tourism). The heads of the three organizations were then approached and asked, if they would agree to be interviewed for the purpose of the study. Furthermore, they were asked to introduce to their staff the purpose of the study and the proposed dates of administering questionnaires and interviews. Before administration, a letter was sent using the organizations' mailing lists. In the letter a brief introduction was made regarding the purpose of the study. This was done in order to create a positive attitude among employees and to create a climate of trust regarding data gathering and eventual processing. In the personalized letter employees were asked to decline participation in advance. Not one rejection of participation was received in this way. A note should be made that the letter sent gave very general information about the intent of the study, hypotheses were not discussed nor the constructs. In this study, for instance, informing employees of the aim of the study could produce a response bias.

The study was conducted in mid February 2007, two weeks before a final decision was made by government regarding the merger. Interviews with the Executive Managers were conducted on the same days as questionnaire administration.

4.5 Self report measures

The theoretical constructs of job satisfaction, uncertainty, organizational commitment and change readiness are not directly observable. Therefore empirical instruments (i.e. questionnaires) are used to test the hypothesized relationship between them. As always when using self-report measures the question of validity of instruments is imperative (Field & Hole, 2003, pp. 44−46).

When the measures for this study were operationalized, two things were of central importance. Firstly, the purpose of measurement validity in light of the use of factor analysis to reduce items for the variables. Secondly, the practicality of the research tool as relating to the aim of the study, which was to build a simple analytical tool to measure variables affecting change readiness.

All statements were tested carefully against the purpose of measuring the construct intended. No items were chosen that obviously are similar to other items covering the construct. Questions were also chosen in order to cover the full range of the constructs (Field & Hole, 2003, p. 46).

All statements were closed, with a five point Likert scale. The response scale used included the following alternatives; *strongly disagree, disagree, not sure, agree and strongly agree*. A Likert scale was chosen because respondents can explicitly understand it and the scale discriminates well between respondents perceptions; their degree of agreement or disagreement. The format of the Likert scale is straightforward and flexible. Depending on what is appropriate statements can consist of only a few words up to a few lines (Fowler, 2002, p. 114). It is easy to interpret and has a minimal response bias. A five point Lickert scale was also chosen because of the use of factor analysis to reduce measurement items for each variable. Other advantages involve the possibility of answering neutral as well as the ability to obtain summated values. A note should be made to the fact that some of the measures are negatively worded while others are positively worded. This was done in order to reduce the likelihood of agreement bias (Schutt, 2006, pp. 241−242; Fowler, 2002, pp.

93−95). This was obviously reversed in the data analysis in order to align with other items on the scales.

4.6 Measures of semi structured interviews

The aim of the interviews was to produce knowledge about how the Executive Managers perceived the effects of the proposed merger on employees. This is done to investigate the relationship between change readiness, managers and the three organizations, as outlined in the propositions.

The Executive Managers were asked to give an account on the historical background for the proposed merger. This involved both their communication with government, the initiator of the merger, as well as describing the level of information available to employees. In this way a picture is drawn that illustrates the unique position the Executive Managers were in during the time of the study.

Central to the use of the interviews in the study is an exploratory approach. Exploratory research, within the social sciences, typically seeks to find out how people react to a setting under question, what meaning they give their actions and what issues most concern them. A method most fitting this type of inquiry involves qualitative methods, in this case semi-structured interviews with managers of the tree organizations facing merger. Semi-structured interviews facilitate understanding; they allow flexibility and tend to produce rich data (Smith et al., 1995).

Analysis of the data was interpreted according to Kvale (1996, pp. 201-204). The main themes in all interviews were analysed according to the constructs of measures and results then compared as they relate to propositions two and three (P^2 and P^3). A semi structured interview guide was used to cover most of the questions asked in the survey.

Interviews were conducted on the same days as survey questionnaire administration. All interviewees gave their consent to the use of the data for the purpose of the study.

5 Findings

The study is based on two types of primary data. One was gathered with a questionnaire survey administered among employees of three Icelandic governmental organizations, all considered applicable for merger. Another type was gathered using interviews.

The questionnaire survey aimed at testing questionnaire item loadings on factors for the main constructs of measures, furthermore to investigate correlation between these components in order to test the propositions and hypothesis. Another type of primary data was gathered by conducting semi structured interviews with Executive Managers of all three organizations. The objective of the interviews was twofold, to obtain in depth knowledge of the proposed merger from those in a unique position and secondly to investigate the relationship between change readiness, Executive Managers and the three organizations, as outlined in the propositions. The interviews were recorded, with the consent of the respondents. All respondent gave permission for the use of interview data for the purpose of the stated objectives of the thesis.

Data from the questionnaire survey was analyzed using factor analysis. Factor analysis is unlike many statistical techniques, it is not intended to test hypothesis. Rather it is used to reduce larger sets of variables and summarizes them to components. These components, if grounded in theory or observation, can then be used to measure the variables or constructs they relate to (Field, 2005 pp. 620−621; Pallant, 2007, pp. 179−178).

A rotated component matrix produced indication that components corresponded with the constructs under investigation. To further test the reliability of the variables reduced from the items, each was tested in order to make up a corresponding factor. The results are reported for each of the four constructs; job satisfaction, commitment, uncertainty and change readiness.

Before discussing the findings of this thesis in relation to the theory of organizational change the most relevant results are reported. Findings are reported respectively, first for the questionnaire survey and then the interviews.

5.1 Results from the survey

In order to asses the suitability of using factor analysis for the data, an initial examination was made with all 22 questionnaire items. For data to be considered suitable for factorial analysis a correlation matrix should show a number of correlations of r=.3. This authentication was fulfilled.

An initial data reduction produced six components with initial eigenvalues above 1.0. Bartlett's test of Sphericity was significant at (p < .05) and Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was above .60 the minimum for a good factor analysis (Hinton et al., 2004. p. 349). It is suggested that the further analysis should investigate component 1, 2 and 3 corresponding respectively to; job satisfaction, change readiness and uncertainty. More ambiguous is the relationship between components 4 and 6 and organizational commitment. These correlations are seen in Table 5.1 on the following page.

Table 5.1 Pattern matrix: Reports the factor loadings for each variable on the components or factors after rotation. Partial correlation between the item and the rotated factor help to formulate an interpretation of the factors (components).

	Components					
	1	**2**	**3**	**4**	**5**	**6**
js_My job measures up to the sort of job I wanted [....]	.67					
js_(R*)_ I am unhappy with my salary	.80					
js_In my place of work, the moral is good	.45			-.31		.57
js_I am satisfied with my colleagues	.63					.30
js_I am satisfied with my supervisor	.78					
js_I am satisfied with my job	.57					.39
cr_[....]merger will be successful		-.76				
cr_I will work hard to make the merger successful		-.86				
cr_I look forward to be involved in changing [....]		-.89				
cr_ (R*)_I will resist any changes [....]	.34	-.56				
cr_(R*)_ [....]nothing I need to change [....]	-.43		-.35		.55	
cr_(R*)_ [....]area in which I work functions well [....]					.83	
com_I enjoy discussing my organization [....]				.68	-.33	
com_[....]this organization problems are my own				.69	.34	
com_I feel like part of the family at my organization					-.41	.65
com_This organization has[....]personal meaning [....]						.69
com_(R*) [....]strong sense of belonging [....]				-.45		
unc_In my place of work, people feel uncertain [....]			.68			
unc_(R*)_ [....], there is a clear plan/vision for the future			.32		.61	
unc_I dont know what my job will be in the future			.81			
unc_I feel uncertainty when discussing the future[....]			.86			
unc_It is impossible to predict the result [....]			.48			

*Note: Item reversed before analysis
js = Job satisfaction
cr = Change readiness
com = Commitment
unc = Uncertainty

5.1.1 Job satisfaction

The initial data reduction for all items measuring job satisfaction produced only one component. The component had an eigenvalue of 3.60 and explained 60% of variance. A reliability statistic using Cronbach's alpha reveals an α-level of 0.86. Bartlett's test of Sphericity was significant (.00) and Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was 0.85, thus above suggested a minimum value for a good factor analysis.

Table 5.2 Initial and valid component matrix for job satisfaction

	Component
	1
js_My job measures up to the sort of job I wanted when I started	.68
js_I am unhappy with my salary (R*)	.68
js_In my place of work, the moral is good	.78
js_I am satisfied with my colleagues	.80
js_I am satisfied with my supervisor	.86
js_I am satisfied with my job	.83
* *Note: Item reversed before analysis*	

All items have a strong positive correlation to the component. As may be seen in Table 5.2 the strongest items were *I'm satisfied with my supervisor* (.86) and *I'm satisfied with my job* (.83).

5.1.2 Uncertainty

The initial data reduction for all five items measuring uncertainty produced one component with an initial eigenvalue of 2.33 explaining 46.71% of the variance. The KMO was .69 and the Bartlett's test was significant (.00). However the α-level was 0.69, and the item *In my organization, there is a clear plan/vision for the future* (reversed) had only .14 of its variance accounted for by the component. This suggested repeating the analysis without this item.

Using the four remaining items, data reduction again produced one component with an eigenvalue of 2.33. Because one item was deducted the component now explains 56.29% of the variance. Again the KMO was .69 and the Bartlett's test significant (.00). The α-level was now 0.74.

Table 5.3 Valid component matrix for uncertainty

	Component
	1
unc_ In my place of work, people feel uncertain regarding the future	.73
unc_I don't know what my job will be in the future	.74
unc_I feel uncertainty when discussing the future with clients	.87
unc_ It is impossible to predict the result of the merger	.65

As seen in Table 5.3. all items had a strong correlation with the unrotated factor. The item with the highest correlation was; *I feel uncertainty when discussing the future with clients* (.87).

5.1.3 Commitment

As seen in the pattern matrix in Table 5.1 the partial correlation between the question items measuring commitment and the factors (components) after rotation was not uniform. It seems that two items correspond significantly with component number four, and two items with component six. This solution was investigated through factor analysis.

In keeping with the procedure of data reduction all question items were factor analyzed. This produced, as expected, two components with eigenvalue above 1.0, explaining cumulatively more then 61.40 %. However the KMO was .489 ruling out further analysis.

Table 5.4 Initial component matrix for commitment

	Components	
	1	**2**
com_I enjoy discussing my organization with people outside it	.21	.73
com_I really feel as if this organizations problems are my own	.37	.59
com_I feel like part of the family at my organization	.77	-.17
com_ This organization has a great deal of personal meaning for me	.88	.02
com(R*)_I do not feel a strong sense of belonging to my organization	.37	-.69

* *Note: Item reversed before analysis*

Table 5.4 indicates two items correlating with component number one; *I feel like part of the family at my organization* (.77) and *This organization has a great deal of personal meaning for me* (.88). Also two items correlate reasonably with component number two; *I enjoy discussing my organization with people outside it* (.73) and *I really feel as if this organizations problems are my own* (.59).

Further analyses of the two components reveled that only the highly correlating items to component one fulfilled general requirements for factor analysis. However, this component only has two items, *I feel like part of the family at my organization* and *this organization has a great deal of personal meaning for me*. When reduced the two items produced one component with an eigenvalue over 1.0 (1.50) explaining 75% of the variance. Because the items are so few on the scale the KMO was only .50 (below a suggested minimum) and the α-level was only 0.66. Normally this would not be a sufficient reliability. However because of a rather high level of internal consistency (.50 and significant at 0.01 1-tailed) it is deemed sufficient to use as one factor measuring commitment (Cortina, 1993, p. 100).

There seems to be disagreement in the field of social science research what indicator of reliability should be used when the items of a scale are only two. The disagreement revolves around which of two methods should be used; Cronbach's alpha or correlation coefficient. Both views base their arguments on the equation for Cronbach's alpha (Hulin et al., 1993, p. 55).

The Cronbach's alpha equation is sensitive to the number of items in the nominator. With an increased number of items the α-level will also increase out of proportion to the average item correlation to the component (Field, 2005, pp. 668−669). As seen in Table 5.5, both items have the same correlation to the component (.87).

Table 5.5 Valid component matrix for commitment

	Component
	1
com_I feel like part of the family at my organization	.87
com_This organization has a great deal of personal meaning for me	.87

5.1.4 Change readiness

The initial data reduction for all six items measuring change readiness produced two components over 1.0 in eigenvalue, together explaining 66.15% of the variance. The KMO was .73 and the Bartlett's test was significant (.00). Although the α-level was .86 the component matrix suggested that all six items produced two independent factors. Two items had a positive correlation to component number two (both reversed); *There is nothing I need to change about the way I do my job to be more efficient* (.81) and *The program or area in which I work functions well and does not have any aspects that need changing* (.86). Further analysis reveled that they had a α-level of only .55 thus ruling out further use.

The remaining items were tested. They produced a single component with an eigenvalue of 2.53 explaining 63.26% of the variance. Sampling adequacy (KMO) was .75 and Bartlett's test was significant (.00).

Table 5.6 Valid component matrix for change readiness

	Component
	1
cr_I feel optimistic that the proposed merger will be successful	.82
cr_I will work hard to make the merger successful	.87
cr_I look forward to be involved in changing the program or area in which I work	.85
cr_(R*)_I will resist any changes to the program or area in which I work	.62
* *Note: Item reversed before analysis*	

As seen in Table 5.6 three items had correlation above .80 to the factor. The lowest correlation was the question item (reversed) *I will resist any changes to the program or area in which I work* (.62).

5.1.5 Remaining items and the correlation of factors

The questionnaire survey aimed to test item loadings on components to construct factors. The results of the construction of these factors have been explained. The remaining items on each of the four factors are summarized in Table 5.7 on the following page.

Table 5.7 Overview of remaining questionnaire items for each of the four variables

---

Summary of items within factors

Items measuring job satisfaction

My job measures up to the sort of job I wanted when I started

(R)_I am unhappy with my salary

In my place of work, the moral is good   **= Job satisfaction**

I am satisfied with my colleagues

I am satisfied with my supervisor

I am satisfied with my job

Items measuring uncertainty

In my place of work, people feel uncertain regarding the future

I don't know what my job will be in the future

I feel uncertainty when discussing the future with clients   **= Uncertainty**

It is impossible to predict the result of the merger

Items measuring commitment

I feel like part of the family at my organization

This organization has a great deal of personal meaning for me   **= Commitment**

Items measuring change readiness

I feel optimistic that the proposed merger will be successful

I will work hard to make the merger successful   **= Change readiness**

I look forward to be involved in changing the program or area
in which I work

(R)_I will resist any changes to the program or area in which I
work

Table 5.8 Descriptive statistics and correlation among study variables

	Mean	Standard deviation	Correlation of factors		
			1	2	3
1. Job satisfaction	3.77	.69	–		
Sig. (2-tailed)					
2. Change readiness	3.73	.84	**.37****	–	
Sig. (2-tailed)			.00		
3. Uncertainty	3.90	.78	-.27*	**-.23***	–
Sig. (2-tailed)			.02	.05	
4. Commitment	3.44	.77	.44**	**.04**	.07
Sig. (2-tailed)			.00	.72	.56

N = 77 (valid listwise)

**Correlation is significant at the .01 level (2-tailed).

*Correlation is significant at the .05 level (2-tailed).

As explained before, the purpose of the survey was mainly twofold, one was to construct factors thus producing functional measures for the variables, secondly to use these measures in relation with the propositions and to test the hypotheses (H^1, H^2 and H^3).

H^1 states: *Employees that report high levels of job satisfaction report higher levels of change readiness, than those that report low levels of job satisfaction.* This hypothesis proposes that job satisfaction has a positive correlation with change readiness. Findings suggest that job satisfaction has a medium positive linear association (.37) with change readiness. The correlation is significant at .00. Therefore H^1 is supported.

H^2 stated: *Employees that report high levels of uncertainty at time of change report lower levels of change readiness, than those that report low level of uncertainty.* This hypothesis proposes that uncertainty has a negative linear association with change readiness. Findings suggest that uncertainty does have a small negative correlation with change readiness (-.23). The correlation is significant at .05, and therefore H^2 is supported.

H[3] stated: *Employees that report low levels of organizational commitment report higher levels of change readiness, than those that report high levels of organizational commitment.* This hypothesis proposes that organizational commitment correlates negatively with change readiness. Findings suggest that commitment does not have a linear association with change readiness (.04). However the significance is .72 and therefore considerably above a minimum. Therefore H[3] is not supported.

5.1.6 Change readiness: "between-organizations" analysis of variance.

To test for a significant difference between levels of change readiness between the three organizations a one-way between group ANOVA was used. Although the sample/population ratio is good (88.5%) and the scales have been tested for reliability through data reduction, the population of subgroups is small. Therefore a Kolmogorov-Smirnov test was used and the test determined the sub-groups fitting for one way ANOVA[*].

A one-way between-groups analysis of variance was conducted to explore the impact of organizational grouping on levels of change readiness, as measured by the component (factor) following data reduction. Subjects were grouped according to the three organizations (Group 1: Regional Development Institute of Iceland; Group 2: Technological Institute of Iceland; Group 3: Icelandic Building Research Institute). There was a statistically significant difference at the $p < .05$ level on the change readiness scores for the three organizations. $F(2.74) = 5.4$ $p = .006$. The effect size (sum of squares between-groups divided by total sum of squares) is, eta squared = 0.12. According to Cohen (1988, p. 284–287) this is a large effect size. Post-hoc comparisons using Tukey HSD test indicates that the mean scores for Group 1 (M = 4.13; SD = 0.60) is significantly different from Group 3 (M = 3.29; SD = 0.84). Group 2 (M = 3.76; SD = 0.85) did not differ significantly from either Group 1 or Group 3.

---

[*] Regional Development Institute of Iceland: Kolmogorov-Smirnov Z (.608) and Asymp. Sig. (2-tailed) (.853); Technological Institute of Iceland: Kolmogorov-Smirnov Z (.870) and Asymp. Sig. (2-tailed) (.436); Icelandic Building Research Institute: Kolmogorov-Smirnov Z (.637) and Asymp. Sig. (2-tailed) (.812).

Table 5.9 Multiple comparisons of organizations when dependent variable is change readiness

(I) Organization	(J) Organization	Mean Difference (I-J)
Regional Development Institute of Iceland	Technological Institute of Iceland	.369
	Icelandic Building Research Institute	**.836***
Technological Institute of Iceland	Regional Development Institute of Iceland	-.369
	Icelandic Building Research Institute	.467
Icelandic Building Research Institute	Regional Development Institute of Iceland	**-.836***
	Technological Institute of Iceland	-.467

The mean difference is significant at the .05 level.

The difference between change readiness scores of employees at the Regional Development Institute of Iceland and employees at Icelandic Building Research Institute is statistically significant. Figure 5.1, beneath, shows different mean-scores of the three organizations.
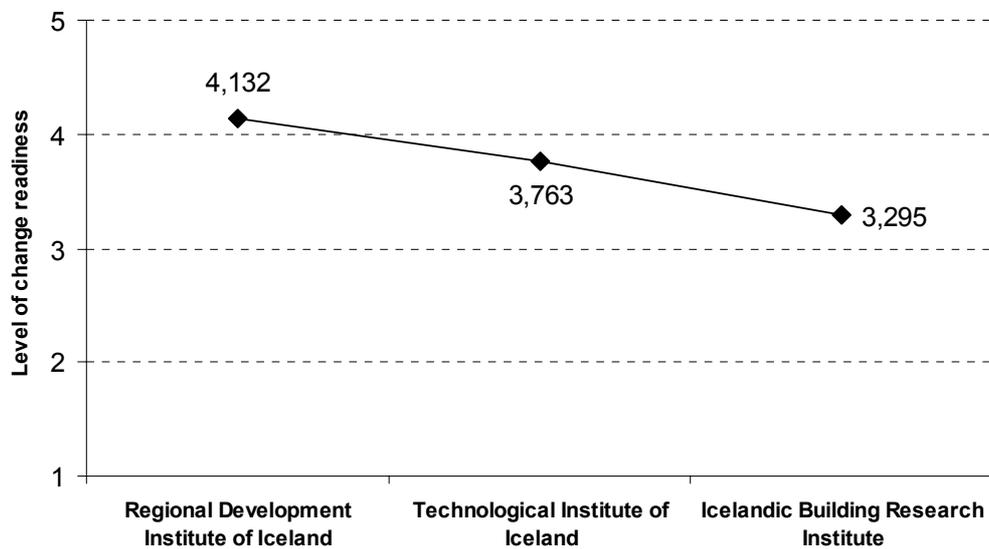

Figure 5.1 Organizations differing levels of change readiness

5.2 Results from the interviews

In addition to the data from the survey, interviews were taken with the Executive Managers of the three organizations. They were asked questions about their association to the questions in the self report survey, covering the constructs under investigation. In addition Executive Managers were asked questions about the likelihood of successful of organizational change if the implementation of the proposed merger would be actualized.

The interviews with each of the three Executive Managers resulted in a relatively diverse range of opinions being expressed regarding the proposed merger and their considered effects on the organizations and their staff. However, there was unanimity among those interviewed that work life within their organization had changed in the weeks and months before, as a result of the proposed plans for merger.

In order to add structure to the reported findings they will be presented independently for each of the organizations (Executive Managers). Direct quotations are in italics.

5.2.1 Executive Manager, Technological Institute of Iceland

The merger process

Asked about the rate of organizational change, respectively for the Technological Institute of Iceland and the two others the Executive Manager said that that Icelandic Technology Institute and Icelandic Building Research Institute are in many ways similar organizations, but on the other hand the Icelandic Regional Development Institute is more different. Discussing this difference he says: *we are not so political, they* [Icelandic Regional Development Institute] *on the other hand are in essence a political organization and* [those] *most in favour of merger are the people that have political connections with Icelandic Regional Development Institute.*

Icelandic Technology Institute had made special efforts to inform employees about everything regarding the merger plans. *Everything I feel people would like to know I tell them. At the same time I know there are a lot of ideas and work being done that is not relevant for discussion. Then of course I don't have very much to say about the merger plans*

When asked in what way employees were involved in the merger plans, the Executive Manager said that consultation should have been better, not only with employees

but with the managers of certain departments. *There is a lot of knowledge between these walls, because people know how things work, so I think it is crucial to hear more from the people who know most about* [the things] *that will change.*

Job satisfaction

The Executive Manager talked about the relationship between job satisfaction and responsibility. *People need to feel in control of what they are doing as well as knowing that they have a say in how things are done. I think people don't become happy just because working here is so much fun, it's seldom like that. Rather I think people are happy to work here because they carry responsibility and accept their responsibility.*

Uncertainty

At Icelandic Technology Institute policy formulation had generally been conducted every three years and should have been conducted in the previous fall (fall 2006). Because the proposed governmental bill regarding the merger was put forth at the same time, it was decided to withhold plans for long term planning. *What we did was to come up with the term "mini- policy formulation", which had the sole purpose of creating a vision but at the same time making us flexible within a proposed new structure. Even though we don't really know how the new structure would look like.*

The effect of uncertainty on employees was regarded as being little: *At least less then I thought it would be, there is only one employee that has resigned, saying that the proposed merger was one of the reasons.*

Commitment

When asked what effect the proposed merger had on employee's commitment the Executive Manager said that it can be difficult people to be committed to their organization when you cannot give them a detailed vision of the future. This is why: [the] *mini- policy formulation is so important. I think that it has given staff a sense of control for the upcoming merger and a feeling that we are organized and ready".* When asked to explain further what he felt most affect commitment in the organization he explained that it was in addition to the current situation of uncertainty hard to convince people to work for wages that are not compatible to those offered in other sectors, especially the banking sector, thus drawing a comparison between wages and commitment.

Change readiness

The Executive Manager said that he felt employees where probably more positive towards the merger than employees at the other organizations. *You see, people have of course read the bill and when you read it you see it's not even a step removed from the type of operations we run here today. The only thing new is an emphasis on regional development and nobody here thinks, I think, that regional development will become an important part of there responsibility.*

The Executive Manager at Icelandic Technology Institute discussed many aspects of the work environment that effected change readiness but the single most important he described as being; direction and a sense of vision. Then he brought up the problem of resistance to change. [It is] *very important, always when introducing something new, to deal swiftly with resistance […] its best to deal with it sooner rather then later.*

5.2.2 Executive Manager, Regional Development Institute of Iceland

The merger process

Asked about the scale of organizational change, respectively for the Regional Development Institute of Iceland and the two others the Executive Manager answered: [that the idea] is to *merge two organizations that are very similar in structure and operation* [Icelandic Technology Institute and Icelandic Building Research Institute]. *At the same time government can use the opportunity to address what is essentially a political matter of restructuring the functions of this organization, trough conjoining it with the others.* He then goes on to explain the unique utility of the Regional Development institute as a capital investment instrument, used for assisting and sustaining economic development in rural Iceland. *What exactly calls for the need of our organization to take part in this merger, I must admit I don't know.*

No deliberate action had been taken in order to involve employees in the plans for the proposed merger. The Executive Manager stated that at the later stages of finalizing the government bill he was consulted. *I have tried to keep staff informed about what I know but obviously it's not possible to go into details. Employees, I think, are very well informed, it's not a totally closed process. If anything, I would have chosen a better control of the information because we don't know if this will work out, the way it has been proposed, and it causes a lot of uncertainty.*

Job satisfaction

The Executive Manager said job satisfaction was very important at Regional Development Institute of Iceland. *I think job satisfaction is one of the key reasons why people choose to work here and it's not just because of the organization it's also just the town. Here people can go home during there lunch break, even coffee breaks. It's good when you have a family, and that's why we have a lot of good employees I think.* When asked if conscious effort had been made to influence job satisfaction he said that there were no programs but people are conscious and vocal about their preferences: *I would surely be the first to know if anyone is unhappy with something here.*

Uncertainty

The manager said that early on in the change process people were told that the purpose of the re-organization of the three organizations was not to reduce operation. The proposed plans had not, in his opinion, affected moral. Describing the general influence of uncertainty the Executive Manager goes on to explain: *of course as an organization this has meant a type of pause, in the sense that we are not taking any decisions about long term investment or obligations* […] *therefore you could argue that the organization is not developing as normal. I think it will be a sigh of relief when they* [government] *finally decide how they are going to do this* […] *until then we are all waiting, there is noting else we can do.*

Commitment

Commitment is not something I think you can influence. In organizations people come and they go but I expect people to do their job when they are here of course. Asked if he felt employees that are committed would experience the merger more dramatically the Executive Manager responds: *I know that employees that have been here for a long time, and are probably most committed, are not all happy about the way this merger has been introduced. But I also think these employees are also the one's that will be most valuable for the merger.* Discussing what the organizations could do to incite commitment in a new organizational structure he went on to say: *There are many opportunities in a new organization and I think that if people feel they are taking part in a type of start-up or organization-building it will be exciting and hopefully this will give the merger a special boost.*

Change readiness

I think [creating change readiness] *is all about getting employees involved. Staff will never be ready to change if they don't feel part of the organization that is changing.* In this respect he thought that the merger plans should have taken greater steps to involve employees from the beginning. *There is a lot of competence in this organization, there is no other organization responsible for the type of work we are doing* [implementing regional policy] *so you would think that government would need more expertise when creating this type of long term vision.*

5.2.3 Executive Manager, Icelandic Building Research Institute

The merger process

Asked about the scale of organizational change, respectively for the Icelandic Building Research Institute and the two others the Executive Manager said that there had been a lot of good work done previously concerning a possible merger of the Icelandic Building Research Institute and The Icelandic Technology Institute. This had resulted in plans people were happy with. Operations would be unchanged and people felt they had many opportunities within the new merger. However: *when the current governmental bill proposed to conjoin the Regional Development Institute people felt thing were falling to peaces. Of course we don't understand the need to put us under the same organization responsible for administering development funds.*

Asked further about what, he felt, called for this merger the Executive Manager said: *it is all very political and in my experience it is not good to mix politics with research and innovation.* He continued describing a lot of interesting work that the Icelandic Technology Institute was doing: [we] *could well see us working more closely with them. From our point of view there is nothing that justifies this proposed merger, other than the popular idea that "big is beautiful".*

Job satisfaction

It's hard to tell what makes one employee happy and another one unhappy, I guess it's very personal. People just have to do something if they don't like their work, personally I think its good for people to have a hobby or pastime for when they go home, though for many work combines their interests […] *that's also good.* Asked to further explain what job satisfaction involved, the Executive Manager did not see it as a responsibility of the organization, apart from securing work safety a satisfactory work environment.

Uncertainty

Discussing the impact of uncertainty, the Executive Manager describes the progress that had been made before the current plans for merger were decided. Upsetting these plans was in his view the biggest source of uncertainty. He continues: *You can't really expect people to put up whit this type of work* [the way government introduced the proposed merger] *I think people should have a saying in these matters. There are a lot of invaluable employees here, people who can choose from different jobs all round the world, I have had resignations because of these changes and I'm afraid there will be more.* He continued to describe the uncertainty regarding the structure of the new organization, and the risks of going ahead plans that are not yet formulated.

Commitment

When asked to discuss the role commitment had on employee's willingness to participate in the merger the Executive Manager said: *There are a lot of very committed people working here, and many with years of experience. However, I do think that these are exactly the people that see problems with this merger, and they know that things are working fine as they are, and see no need in changing the organizational structure.*

Change readiness

Like other interviewees the Executive Manager emphasizes communication as contributing to change readiness: *Information is the most important thing, there will be no drastic changes. We will still be responsible for conducting research within the building industries. But I think that employees need more information, how are thing going to be? Nobody knows.*

6 Discussion

The objective in this thesis was to investigate the effects of organizational change. This was done through the review of literature and through empirical analysis. A very important part of this process involved developing measurements of the main constructs of interest; job satisfaction, uncertainty, commitment and change readiness. After measurement, the relationship between the main constructs and change readiness was investigated with special emphasis on testing three hypotheses introduced under the first of three propositions (P^1). Further analysis then investigates two propositions, one testing the assimilation of attitudes of Executive Managers and employees' to organizational change (P^2), and one testing the relationship between the rate of change and change readiness (P^3).

In this discussion the literature of organizational change is first encapsulated, before discussing the findings of the developed measures as they concern the propositions and hypotheses.

6.1 Organizational change: the general findings

It can be argued that public sector managers are increasingly confined to efficiency in running organizations, the environment in which they operate differs somewhat from those of their private counterpart. Whereas the private sector obviously operates within a legal framework, the freedom of choice is generally set by the opportunities and restrictions of markets. This means that organizations will react to changes in order to optimize their gain or minimize their losses. At the same time public sector managers often lack the same freedom of choice. Freedom comes more in the form of policy adaptation, and the ability to influence the way course is set by government. This distinction between the two sectors is obvious, when considering that the environment of public sector organizations is more or less a political one (Osborne & Brown, 2005, p. 13). Taking this into account new-institutional theory has nonetheless been criticized for being "weak in analyzing the *internal* dynamics of organizational change" (Greenwood & Hinings, 1996, p. 1023). This is thought to have resulted in new-institutional theory being less involved in the big debate about organizational change. At the same time it is capable of lending it's insights and suggestions

to a general analysis of organizational contexts, organizational change being one of these contexts.

If change denotes a transition from being something stable, to later becoming something different, a theory of change is capable of borrowing from a wide field of disciplines. Focusing on change within social science can narrow the scope, but at the same time it presents a problem of defining interdisciplinary boundaries. Social science is an interwoven discipline, making organization studies sometimes a complicated compilation of theoretical approaches. Although many theories of change have strong roots within broader social theory, and more specifically organizational theory, one must accept that scholars have borrowed from fields such as child development and evolutionary biology (Van de Ven & Poole, 1995, p. 501).

It may be helpful to use the Individual-, Group Dynamic- and Open System school, to analyze the effects of change. These three schools fall into a broader analysis of interconnectedness of organizational levels as found in system dynamics, where interrelationships occur as feedback loops. Individuals are affected by group-processes and organizational structure, groups are affected by organizational structure and individuals, and organizational structure is affected by individuals, groups and environments. This interconnectedness continues to form complex systems of dynamic relationships (Coghlan & Rashford, 2006, pp. 26–27).

Of special relevance is the three step model of change proposed by Kurt Lewin. The three-step model has mainly been criticized for the idea of refreezing. Lewin's idea that it is necessary to cement new organizational reality, in order to prevent backsliding to earlier structural forms is seen as being ignorant of increasingly unstable organizational environments (Senior, 2002, p. 310). Criticism voiced against Lewin's model can, at the risk of oversimplification, be seen as two sided. First it voices the inappropriateness of conceptualizing organizations and other change-subjects as living in a static environment (quasi-stationary equilibrium). Secondly the model is criticized for presenting change as a linier notion. It is with this in mind that Rosabeth Moss Kanter (1992, p. 10) portrays the model as being "…so wildly inappropriate that it is difficult to see why it has not only survived but prospered, except for one thing. It offers managers a very straight forward way of planning their actions."

Criticism against Lewin's model is on par with criticism facing the *planned approach* to change as championed by the advocates of organizational development (OD). Although it is worth noting that Lewin did in fact acknowledge the turbulence that can exist in

organizational environments. This is not least evident in his use of the term "quasi" (meaning almost) as a preposition in describing the "static" equilibrium. This is somewhat to underscore the nature of change and constancy as being, in Lewin's own words: "relative concepts; [and that] grouplife is never without change, merely differences in the amount and type of change" (Lewin, 1997, p. 308).

Any change to one part of a organizational systems should be viewed in terms of the effect it can have on the whole system. Therefore open system theory becomes relevant for analyzing changes when looking at sub-systems and the way they determine over all benefits for organizations, seeing organizational change as a "…method of describing and evaluating these sub-systems, in order to determine how they need to be changed so as to improve the overall functioning of the organisation" (Burnes, 2004b, p. 265).

As opposed to rational- and natural systems, the open system approach does not assume the organization as being composed of stable and easily identifiable members. Rather, as said earlier, individual loyalties can shift, always calling into question the distinction between the organization and its environment (Scott, 2003, p. 29). This results in the organization no longer being the single privileged unit of analysis and further casts a light on the difference between the rational/natural and the open system model, described by Scott (2003, p. 185):

> The central insight emerging from the open system model is that
> organizations are incomplete: all depend on exchanges with other systems.
> All are open to environmental influences as a condition of their survival.
> By contrast both the rational and natural system perspectives insist that
> organizations, as a condition of their existence, must maintain boundaries
> that separate them from their environments.

Not comprising of a single practical approach to managing organizational change, the open system approach however presents a framework for analyzing the complexity and interconnectivity of sub-systems involved when systems change, the sub-systems relation to environments and the effects small changes can have on larger organizational structure.

This has lead to a decreasing influence of Organizational development (OD), discussed by Worren et. al. (1999) as signaling the emergence of the new profession of *change management*. It is argued that OD has failed to take into consideration the needs of effective solutions in increasingly competitive environments. This problem is further

highlighted by Beer and Walton (1990). Discussing the problems facing OD they state that it's primary focus must move away from being just intervention in normative behavior but rather "[i]ntervention that aligns roles and responsibilities (the context for behaviour) with the organizations most important task" and taken even further they say: "[c]hanges in context effect changes in employee behavior first, before attitudes, norms, or skills are well formed" (Beer & Walton, 1990, p. 160).

Change management must encompass a broader scope of theory and intervention strategies than those offered by OD, a theory acknowledging that a change in "matter" may have to come before a change in "mind". The basic assumption of OD, is that in order to change structures and technology within organizations, then first you need to adapt attitudes and ideas of employees. In contrast, it seems to have become the general notion that changes in both attitude and behavior must follow changes in organizational structure (Worren et al., 1999, pp. 278−279). This notion is for example evident in the popular book *Leading change* by John P. Kotter, where it is suggested that one of the last thing to do in the organizational change process is to anchor the new approach in the culture, in other words: "Culture changes only after you have successfully altered people's actions, after the new behaviour produces some group benefit for a period of time, and after people see the connection between the new actions and the performance improvement" (Kotter, 1996, p. 156).

In the remaining chapters the focus is set on discussing the empirical part of the thesis. First limitations are discussed, before the findings are presented in relation with the propositions and hypotheses.

6.2 Limitations of the study: external validity

The limitations of this study are grounded on three general short comings. Firstly it's method of observation, secondly it's lack of capacity or scope and thirdly its language and problems regarding question-items translation.

Firstly: the survey was conducted only once. The principal constructs of measures are all sensitive to external manipulation. They can therefore change considerably from one time to another. The study was not able to correct for this problem. The survey administration in one organization was, due to geographical reasons, conducted three days later then in the other two. This does insinuate the possibility of changed circumstances (e.g., less or more information about proponents of the merger process).

Secondly: apart from measuring levels of uncertainty, no effort was made to investigate differing levels of information available to employee about the case specific merger. The reason for this is simply practical, it did not encompass the scope of the study.

Thirdly: consideration regarding the inability to use back translation. Question items for the scales were carefully worded in order to appropriate the theoretical constructs. All questions were written in English as a source language, and then translated into Icelandic. The purpose of back translation would be to compare/contrast the back translation, with the source text with a view, to evaluate the quality of the translation. This was not done.

These shortcomings, as well as a small population, hinder cross population generalizeability rather than presenting a serious problems for external validity. In this respect it should be noted that, with the prerequisites explained, the response rate is at 88.5% and is considered good. Although if time and cost would have allowed, employees not present during time of administration should, have been contacted through other means.

6.2 Findings discussed

An important part of this study involved developing measures of the main constructs of interest; job satisfaction, uncertainty, commitment and change readiness. The findings of the development of these measures will not be discussed here, as they have been thoroughly explained through the data analysis (findings), and do not need further concluding. However, this chapter will present findings, grounded on results from the measures, with regards to the propositions as outlined in the introduction and the hypotheses developed.

Proposition 1 (P^1) stated that: *change readiness is affected by social and psychological aspects, significant in organizations facing merger.* On the basis of this proposition four constructs of interest were investigated and subsequently three hypotheses developed (H^1, H^2 & H^3).

H^1 stated that: *employees who report high levels of job satisfaction report higher levels of change readiness, than those that report low levels of job satisfaction.* Following Cohen (1988, pp. 79−81) results from correlation of the components measuring job satisfaction and change readiness report a *medium direct positive correlation* (.37). As levels of job satisfaction increases, the levels of change readiness increases.

Popular management literature seems content on emphasizing the importance of job satisfaction on work performance. Worren et al. (1999, p. 279) suggest the reason for this

may lie in the consultation side of organizational studies, in management consultations and the legacy of Organizational Development. Rather then looking at job satisfaction as a "stand-alone" indication of work related attitudes, it is suggested here that job satisfaction, should be routinely employed as part of strategy driven and holistic change programs. The finding in this study suggests that job satisfaction does have a role for change readiness and that H^1 is supported.

H^2 stated that: *employees that report high levels of uncertainty report lower levels of change readiness, than those that report low level of uncertainty.* Following Cohen (1988, pp. 79−81) results from correlation of the components measuring uncertainty and change readiness report a *small indirect or negative correlation* (-.23). The finding in this study suggests that as uncertainty increases, the level of change readiness decreases, therefore H^2 is supported.

A major source of confusion regarding the use of the term "uncertainty" involves the employee/organization dichotomy. Within organizational literature uncertainty has both been used as a descriptor of the state of employee, lacking critical information, and a descriptor of the state of organizational environments (Milliken, 1987, pp. 138−139). This seems to have two general implications. Firstly, that uncertainty in terms of organizations can be investigated objectively, as definable constructs. Secondly, that uncertainty in terms of employees, is perceived subjectively and reported as situational attitudes. If uncertainty is only a subjective feeling among employees, its single measurement creates a problem for analysis, especially in determining the direction of relationship with change readiness. Following the general limitation set regarding assumptions about linear relationships of variables, one might be tempted to suggest that high level of uncertainty can both deter and encourage change readiness, thus creating an error involving the property of linearity between the variables (e.g. Moore & McCabe, 2006, pp. 158−161).

H^3 stated that: *employees that report low levels of organizational commitment report higher levels of change readiness, than those that report high levels of organizational commitment.* Commitment is probably the variable, among the constructs of measures, that has previously been best tested for construct validity (i.e. Allen & Meyer, 1990). However, in this study the initial questionnaire items only produced two valid items to a component after data reduction. This component confirmed to have a strong and significant positive correlation (.44) with job satisfaction (Table 5.8), but a weak and not significant correlation with change readiness. Therefore no predictions can be made about the relationship between the variables and H^3 is not supported.

Proposition 2: (P^2) stated *that employees' levels of change readiness are reflected in the attitudes of Executive Managers.* This proposition is tested using results from both the survey and interviews. As seen in Table 5.9 and Figure 5.1, the difference between change readiness scores of employees at the Regional Development Institute of Iceland (4.13) and employees at Icelandic Building Research Institute (3.29) is statistically significant. The proposition does not hypothesize about the relationship between employee's attitude and those of the Executive Managers. However, it calls for the questions of whether the difference between employees' level of change readiness corresponds to the attitudes of the Executive Managers. Arguably this was the case. The Executive Manager of the Regional Development Institute said: "There are many opportunities in a new organization and I think that if people feel they are taking part in a type of start-up or organization-building it will be exciting". He was generally optimistic that the proposed changes would be achievable and that his employees would be happy to take part in the foreseen changes. The Executive Manager of the Building Research Institute was not as content with the proposed changes. He expressed reservations about the likelihood of the success of the merger saying: "From our point of view there is nothing that justifies this proposed merger, other than the popular idea that 'big is beautiful' ".

Variously named; transformational, discontinuous or revolutionary, the term radical change, refers to organization-wide radical shifts and is characterized by, not only changes in structure but in strategy, vision and purpose. Proposition 3: (P^3) stated that: *employees in organizations facing radical or discontinuous change report low levels of change readiness.* Like P^2, this proposition is tested using both data from the interviews and survey. Unlike P^2, the proposition predicts a direction of the relationship between change readiness and the rate of change. The difference between change readiness scores of employees at the Regional Development Institute of Iceland (4.13) and employees at Icelandic Building Research Institute (3.29) is, as has been discussed, statistically significant (Table 5.9 & Figure 5.1). Therefore, the proposition suggests that employees at Icelandic Building Research Institute would be experiencing more radical proposed changes than employees of the Regional Development Institute of Iceland. However, this is arguably not accurate. All Executive Managers were asked to describe the rate of change for their organization, as well as the change rate for the other two. They are all in agreement when they describe that the most radical changes are foreseen in the appropriation of the Regional Development Institute of Iceland to the proposed new organizational structure. However, in stark contrast to the

statement of P^3 the employees of the Regional Development Institute of Iceland measure having the highest level of change readiness.

It has been established, that getting employees to admit to the validity of change initiatives, is one the most challenging aspects of organizational change. Change readiness becomes an important factor involved, irrelevant of the scale of change. Employees need to move from resisting changes to understanding the initiatives, from inactively partaking in there implementation to actively participating in anchoring change (Kotter, 1996, pp. 156−157; Senior, 2002. p. 205).

Change readiness is similar to Lewin's concept of unfreezing. It involves breaking up an existing equilibrium because new behavior can not be implemented before old behavior is unlearned. Readiness is as such a cognitive preparation period. Schein (1979) has argued that "... the reason so many change efforts run into resistance or outright failure is usually directly traceable to them not providing for an effective unfreezing process before attempting a change" (p. 144).

Throughout this thesis it has been established that organizational change is a complex undertaking, involving alteration of individual, group and structural processes. The rate of changes ranges from the simplest implementation of new work processes to the most radical discontinuation of purpose. Some have argued that change is sometimes imposed on employees, who then must adjust without objection (McHugh, 1997, p. 345). Top managers must be sensitive to this situation, as well as the organization's emotional state, simultaneously as they communicate implementation of adapting new structures.

If change readiness is not foreseen, it may have detrimental effects on adaptation of new structures. If a major difference exists between readiness of managers and employees and no action is taken to correct it, resistance should be expected. Therefore a casual outlook on the importance of change readiness can severely threaten change implementation.

7 Conclusion

It has been determined that organizations are sensitive to their environments. In ever changing environments, mergers may be key to organizational survival and success. The effects changes can have on employees are evident in the literature on organizational change. Looking at organizational change as internal and structural adaptation, runs the risk of ignoring employees' needs, and constitutes a serious mistake. Management within organizations stands often accused of looking at the needs of the organization and overlooking adapting capabilities of employees. It is reductionist to imply that organizations can adapt faster then their employees. This thesis has made an effort to investigate the relationship between change readiness and the wider implications of organizational change. In doing so it has succeeded in developing measures for four constructs of interest, job satisfaction, uncertainty, commitment and change readiness.

The findings in this thesis suggest that change readiness increases as measured levels of job satisfaction increases. The findings also suggest that change readiness decreases as uncertainty increases, but the relationship between change readiness and commitment will not be determined by the findings.

Two of the three organizations studied had significantly different levels of change readiness. The findings suggest that employees' change readiness is reflected in the attitudes of Executive Managers. Also, in light of the findings, it may be suggested that employees and Executive Managers in organizations facing discontinuous or radical change do not report lower levels of change readiness, than those in organizations facing incremental organizational change.

It is suggested that further research will benefit from using the measured developed in this thesis. In this thesis, no effort was made to measure differing levels of information available to employee about the case specific merger. It is suggested that future research focus on the role of organizational communication processes, as well as the importance of information on levels of change readiness.

References

Adamson, S. J., Doherty, N. & Viney, C. (1998). The meaning of career revisited: Implications for theory and practice. *British Journal of Management, 9,* 251–259.

Allen, N.J. & Meyer, J.P. (1990). The measurement and antecedents of affective, continuance and normative commitment to the organization, *Journal of Occupational Psychology, 63,* 1–18.

Ansoff, I. & McDonnell, E. (1990). *Implanting strategic management.* New York: Prentice Hall.

Alversson, M. & Willmott, H. (2002). Identity regulation as organizational control: Producing the appropriate individual. *Journal of Management Studies, 39,* 619–644.

Armenakis, A. A., Harris, S. G. & Mossholder, K. W. (1993). Creating readiness for organizational change. *Human Relations, 46,* 681–703.

Bass, B. M. (1990). *Bass & Stogdill's handbook of leadership: Theory, research & managerial application.* New York: The Free Press.

Batt, R. (2002). Managing customer services: human resource practices, quit rates and sales growth. *Academy of Management Journal, 45,* 587–597.

Baum, J. A. C. & Rowley, T. J. (2005). Companion to organizations: An introduction. In J. A. C. Baum (Ed), *The Blackwell companion to organizations* (pp. 1–34). Malden, MA: Blackwell.

Beer, M. & Nohria, N. (2000). Cracking the code of change. *Harvard Business Review, (May-June),* 133−141.

Beer, M. & Walton, E. (1990). Developing the competitive organization. *American Psychologist, 45,* 154–161.

Benjamin, G. & Mabey, C. (1993) Facilitating radical change. In C. Mabey & W. B. Mayon (Eds.), *Managing change* (pp. 181–186). London: The Open University/Paul Chapman.

Bennis, W. (1969). *Organizational development: Its nature, origins and prospects.* Massachusetts: Addison-Westley.

Bishop, J., W. Scott, K. D., Goldsby, M. G. & Cropanzano R. (2005). A construct validity study of commitment and perceived support variables: A multifoci approach. *Group Organization Management, 30,* 153−180.

Brewer, J. & Hunter, A. (1989). *Multimethod research: A synthesis of styles.* Newbury Park, CA: Sage Publications.

Brooke, P. P., Russel, D. W. & Price J. L. (1988). Discriminant validation of measures of job satisfaction, job involvement and organizational commitment. *Journal of Applied Psychology, 73,* 139−145.

Brunsson, N. (1982). The irrationality of action and action rationality: Decision, ideologies and organizational actions. *Journal of Management Studies, 19,* 29–44.

Buller, P.F. (1988). For successful strategic change: Blend OD practices with strategic management. *Organizational Dynamics*, *16*, 42–55.

Burnes, B. (2004a). Kurt Lewin and the planned approach to change: A re-appraisal. *Journal of Management studies, 41*, 977–1002.

Burnes, B. (2004b). *Managing change* (4th ed.). Harlow, England: Prentice Hall.

Burnes, B (2005). Complexity theories an organizational change. *International Journal of Management Reviews, 7,* 73–90.

Callan, V. J. (1993). Individual and organizational strategies for coping with organizational change. *Work and Stress, 7, 63*–75.

Carnall, C. A. (2003). *Managing change in organizations* (4th ed.). Harlow, England: Prentice Hall.

Christensen, T. & Lærgreid, P. (2002). *Reformer og Lederskap* [Reform and leadership]. Oslo, Norway: Universitetsforlaget.

Clegg, S. R., Hardy, C. & Nord, W. R. (1996). *Handbook of organization studies*. London: Sage.

Coghlan, D. & Rashford, N. S. (2006). *Organizational change and strategy*. London: Routledge.

Cohen, J. W. (1988). *Statistical power analysis for the behavioral sciences.* Hillside, NJ: Erlbaum.

Cortina, J. M. (1993). What is coefficient alpha? An examination of theory and applications. *Journal of Applied Psychology, 78,* 89–104.

Cummings, T. G. & Worley, C. G. (1997). *Organization development and change* (6th ed.). Cincinnati, OH: South Western College Publishing.

Curry, B. K. (2003). Organizational flux and destabilizing influence on employee identity. *Management Decision, 41*, 558–569.

Dougherty, D. & Cohen, M. A. (1995). Product innovation in mature firms. In E. H. Bowman & B. M. Kogut (Eds.), *Redesigning the firm* (pp. 87–115). New York: Oxford University Press.

Dunphy, D. (1996). Organizational change in corporate setting. *Human Relations, 49*, 541–551.

Farakas, A. J. & Tetrick, L. E. (1989). A Three-wave Longitudinal analysis of the causal ordering of satisfaction and commitment on turnover decisions. *Journal of Applied Psychology, 74,* 855–868.

Fernandez, S. & Rainey, H. G. (2006). Managing successful organizational change in the public sector. *Public Administration Review, 66*, 168–176.

Fowler, F. J. (2002). *Survey research methods.* Newbury Park, CA: Sage Publications.

Field, A. (2005). Discovering statistics using SPSS (2nd ed.). London: Sage Publications.

Field, A. & Hole, G. (2003). *How to design and report experiments.* London: Sage Publications.

French, W. L. & Bell, C. H. (1984). *Organization development* (4th ed.). Englewood cliffs, NJ: Prentice Hall.

Greenwood, R. & Hinings, C. R. (1996). Understanding radical organizational change: Bringing together the old and new institutionalism. *Academy of Management. The Academy of Management Review, 21*, 1022–1054.

Greenwood, R. & Hinings, C. R. (2006). Radical organizational change. In S. R. Clegg, C. Hardy, T. B. Lawrence. & W. R. Nord (Eds.), *The Sage handbook of organizational studies* (pp. 814–842). London: Sage Publications.

Grundy, T. (1993). *Implementing strategic change.* London: Kogan Page.

Hadaway, C. K., Marler, P. L. & Chaves, M. (1993). What the polls don't show: A closer look at U.S. church attendance. *American Sociological Review, 58,* 741–752.

Hannan, M. T. & Freeman, J. (1984). Structural inertia and organizational change. *American Sociological Review, 49,* 149–164.

Hendry, C. (1996). Understanding and creating whole organizational change through learning theory. *Human Relations, 49,* 621– 641.

Heskett, J., Sasser, W. E. & Schlesinger, L. (1997). *The service profit chain: How leading companies link profit and growth to loyalty, satisfaction, and value*. New York: Free Press.

Holt, D. T., Armenakis, A. A., Field, H. S. & Harris, S. G. (2007). Readiness for organizational change: The systematic development of a scale. *Journal of Applied Behavioral Science, 43*, 232−255.

Hulin, C., Cudeck, R., Netemeyer, R., Dillon, W. R., McDonald, R. & Bearden, W. (1993). Measurment. *Journal of Applied Psychology, 78,* 55–69.

Huy, N. Q. (1999). Emotional capability, emotional intelligence, and radical change. *The Academy of Management Review, 24,* 325–345.

Ichniowski, C. (1986). The effects of grievance activity on productivity. *Industrial and Labor Relations Review, 40,* 75–89.

Jacobsen, D. I. (2006). Organisasjonsendringer og endringsledelse [Orgnaizational change and change management]. Bergen, Norway: Fagbokforlaget.

Jepperson, R. L. & Meyer, J. W. (1991). The public order and the construction of formal organizations. In P. J. DiMaggio & W. W. Powell (Eds.), *The new institutionalism in organizational analysis* (pp. 204–231). Chicago: The University of Chicago Press.

Jick, D. T. (1979). Mixing qualitative and quantitative methods: Triangulation in action. *Administrative Science Quarterly, 24,* 602–611.

Kanter, R. M. Stein, B. A. & Jick, T. D. (1992). *The challenge of organizational change.* New York: The Free Press.

Katz, D. & Kahn, R. L. (1978). *The social psychology of organizations.* New York: Wiley.

Klein, S. M. (1996). A management communication strategy for change. *Journal of Organizational Change Management, 9,* 32−46.

Kotter, J. P. (1996). *Leading change.* Boston: Harvard Business School Press.

Kvale, S. (1996*). InterViews: An introduction to qualitative research and interviewing.* London: Sage Publications.

Lewin, K. (1997). *Resolving social conflicts: And field theory in social science.* New York: Harper & Row. (Reprinted from *Field Theory in Social Science,* 1951).

McHugh, M. (1997). The stress factor: another item for the change management agenda? *Journal of Organizational Change Management, 4,* 345–362.

Meyer, J. P. & Herscovitch, L. (2001). Commitment in the workplace: towards a general model'. *Human Resources Management Review, 11,* 299−327.

Meyer, J. P. & Allen, N. J. (1997). *Commitment in the workplace.* Thousand Oaks, CA: Sage Publications.

Meyer, J. P. & Herscovitch, L. (2001) Commitment in the workplace: toward a general model. *Human Resource Management Review, 11,* 299–326

Meyer, J. W. (1994). Rationalized environments. In W. R. Scott & J. W. Meyer (Eds.), *Institutional environments and organizations* (pp. 28–54). London: Sage.

Meyer, J. W. & Rowan, B. (1991). Institutional organizations: Formal structure as myth and ceremony. In P. J. DiMaggio & W. W. Powell (Eds.), *The new institutionalism in organizational analysis* (pp. 41–62). Chicago: The University of Chicago Press.

Meyerson, D. & Martin, J. (1987). Cultural change an integration of three different views. *Journal of Management Studies, 24*, 623–647.

Miller, E. (1967). *Systems of organisation*. London: Tavistock.

Milliken, F. J. (1987). Three types of perceived uncertainty about the environment: State, effect, and response uncertainty. *The Academy of Management Review, 12,* 133–143.

Moore, D. S. & McCabe, G. P. (2006). *Introduction to the practice of statistics* (5th ed.). New York: Freeman & Co.

Morrow, P. C. & McElroy, J. C. (1993). Introduction: Understanding and managing loyalty in a multi-commitment world. *Journal of Business Research, 26, 1–3.*

Neale, M. A., Tenbrunsel, A. E., Galvin, T. & Bazerman, M. H. (2006). A decisions perspective on organizations: Social cognition, behavioral decision theory and the psychological links to micro- and macro- organizational behaviour. In S. R. Clegg, C. Hardy, T. B. Lawrence. & W. R. Nord (Eds.), *The Sage handbook of organizational studies* (pp. 485–519). London: Sage.

Nystedt, L., Sjöberg, A. & Hägglund, G. (1999). Discriminant validation of measures of organizational commitment, job involvement, and job satisfaction among Swedish army officers. *Scandinavian Journal of Psychology, 40,* 49–55.

Olson, D. A. & Tetrick, L. E. (1988). Organizational restructuring: The impact on role perceptions, work relationships and satisfaction. *Group and organizational studies, 13,* 374–388.

Osborne, S. P. & Brown, K. (2005). *Managing change and innovation in public service organizations*. London: Routledge.

O'Toole, J. (1985). *Vanguard management. Residing the corporate future.* New York: Doubleday.

Hinton, P. R., Brownlow, C., McMurray, I. & Cozens, B. (2004). *SPSS explained*. London: Routledge.

Pallant, J. (2007). *SPSS Survival Manual.* London: Open University Press.

Petty, M. M., Gail, W. M. & Cavender, J. W. (1984). A meta-analysis of the relationships between individual job satisfaction and individual performance**.** *The Academy of Management Review, 9,* 712–721.

Porras, J. I. & Robertson, P. J. (1987). Organizational development theory: A typology and evaluation. In R. W. Woodman & W. A. Pasmore (Eds.), *Research in organizational change and development* (pp. 1–57). Greenwich, CT: Jai Press.

Probst, T. M. (2003). Exploring employee outcomes of organizational restructuring: A solomon four-group study. *Group Organization Management, 28,* 416–439.

Robertson, P. J., Roberts, B. L. R. & Porras, J. I. (1993). Dynamics of planned organizational change: Assessing empirical support for a theoretical model. *Academy of Management Journal, 36,* 619-634.

Schein, E. H. (1999). Kurt Lewin's change theory in the field and in the classroom: Notes toward a model of managed learning. *Reflections, 1,* 59–74.

Schein, E. H. (1979). Personal change through interpersonal relationships. In W. Bennis, J. Van Maanen, E. H. Schein and F. Steele (Eds.), *Essays in interpersonal dynamics* (pp. 129–162). Homewood, IL: The Dorsey Press.

Schutt, R. K. (2006). Investigating the social world: The process and practice of research. Boston, MA: Sage.

Scott, J. & Marshall, G. (2005). *Oxford dictionary of sociology.* New York: Oxford University Press.

Scott, W. R. (2003). *Organizations: Rational, natural and open systems* (5th ed.). Upper Saddle River, NJ: Prentice Hall.

Senior, B. (2002). *Organisational change* (2nd ed.). Harlow, England: Prentice Hall.

Skinner, B. F. (1974). *About Behaviourism.* London: Cape.

Smith, J., Harré, A. R. & Langenhove, L. V. (1995). *Rethinking methods in psychology.* London: Sage Publications.

Sias, P. M. & Wyers, T. D. (2001). Employee uncertainty and information seeking in newly formed expansion organizations. *Management Communication Quarterly, 14,* 549–573.

Somers, M. J. (1995). Organizational commitment, turnover and absenteeism: An examination of direct and interaction effects. *Journal of Organizational Behavior, 16,* 49–58.

Tashakkori, A. & Teddlie, C. (2003). *Handbook of mixed methods in social & behavioral research.* California: Sage Publications.

Terry, D. J., Carey, C. J. & Callan, V. J. (2001). Employee adjustment to and organizational merger: An intergroup perspective. *Personality and Social Psychology Bulletin, 27,* 267–280.

Tidd, J. (2001). Innovation management in context: Environment organizations and performance. *International Journal of Management Reviews, 3,* 169–183.–

Van de Ven, A. H. & Poole, M. S. (1995). Explaining development and change in organizations. *Academy of Management Review, 20,* 510–540.

Walsh, J. & Deery, S. (2006). Refashioning organizational boundaries: Outsourcing customer service work. *Journal of Management Studies, 43,* 557–82.

Weick, K. E. & Quinn, R. E. (1999). Organizational change and development. *Annual Review of Psychology, 50*, 361–386.

Worren, N. A. M., Ruddle, K. & Moore, K. (1999). From organizational development to change management: The emergence of a new profession. *The Journal of Applied Behavioral Science, 35*, 273–286.

Appendix I

Interview guide, translated from Icelandic

Semi structured interview guide

The merger

Does a new organizational structure, proposed with the establishment of a the merger represent a radical or small change for your organization?
What about the other organizations
Discuss.

When do you recall first having heard about the plans for merger

How has your organization, and you yourself, been involved in the proposed merger?

Whom do you see as the main facilitator and/or advocator for the merger?
Discuss
Who do you see getting the credit/blame

What do you see as your own role in the merger

Communication and hierarchy

Within this organization, how important is employee involvement for decision-making?
Do employees have sway in the proposed merger

Is it easy for employees to confront you with their questions?
Do you make yourself especially available?

Do you consider it important to be informed about what your employees are doing on a day-to-day basis?

Job satisfaction

What do you feel this organization can do to make employees more satisfied in their workplace.
Effect of job satisfaction on turnover- discuss

Uncertainty

How have plans for the future been affected by the possibility of a merger?

Do you think that people in this organization feel uncertain about the future?
If yes why
If no why

Do you consider that employees are secure about there jobs in the future?

How (in general) do you think that the merger will affect people's jobs at this organization?

How has the upcoming merger affected the relationship with your stakeholders/your customers?
If no affect, how do you perceive it will affect them?

How confident are you that the predicted outcome of the merger will be realized?

Commitment

What, in your view, is the most import for keeping staff committed
Turnover
Market environment
What can your organization offer members of staff

Change readiness

What, in your view, is important to make people ready for the proposed merger?

How are employees involved in the merger-plan?
    Will they "systematically" get a say about the way jobs are structured

What do you feel is the general perception amongst employees regarding proposed merger?

Finally

For you personally, what has been the most valuable lesson regarding the proposed merger?

What do you see as the most problematic aspect of the proposed new organization?
    Positive- discuss

Appendix II

Questionnaire survey, English source text

Dear participant

My name is Tryggvi Hallgrimsson. I am a 27 year old student at the University of Tromsø, Norway. As part of a master's thesis I am gathering data on employee's attitudes to the planned merger of; the Regional Development Institute of Iceland, the Technological Institute of Iceland and the Icelandic Building Research Institute.

The following questionnaire is not traceable to individual participants and your employers will not have access to your answers. Even so, it is important that you do not write your name or personal information on this copy.

Answer by tagging the appropriate boxes

Q1.   Are you a man or a woman?

☐   Woman

☐   Man

Q2.   How old are you?

☐   19 year old or younger

☐   20-29 year old

☐   30-39 year old

☐   40-49 year old

☐   50-59 year old

☐   60 year old or older

Q3.   Where do you work?

☐   Regional Development Institute of Iceland

☐   Technological Institute of Iceland

☐   Icelandic Building Research Institute

Q4.   How long have you worked for your organization?

☐   Less than two years

☐   Between two and ten years

☐   More than ten years

Q5. What is your education? (tag all completed degrees)

- ☐ Compulsury education
- ☐ Secondary school (junior college or similar)
- ☐ Vocational training
- ☐ Further education (special diploma or similar)
- ☐ Under garduate (BA/BSc or similar)
- ☐ Graduate/ post graduate (masters degree, doctorate or similar)
- ☐ No of the above

In the following segment you are asked to respond to statement concerning your work environment. Answers are given on a scale of 1 to 5, corresponding respectively to Strong agreement (1) and strong disagreement (5).

Please draw a circle around the number best describing your position on each question.

	Strongly agree		↔		**Strongly disagree**
Q6. My job measures up to the sort of job I wanted when I took it	1	2	3	4	5
Q7. I am unhappy with my salary (R)	1	2	3	4	5
Q8. I am satisfied with place of work, the moral is good	1	2	3	4	5
Q9. I am satisfied with my colleagues	1	2	3	4	5
Q10. I am satisfied with my supervisor	1	2	3	4	5
Q11. I am satisfied with my job	1	2	3	4	5
Q12. I feel optimistic that the proposed merger will be successful	1	2	3	4	5
Q13. I will work hard to make the merger successful	1	2	3	4	5
Q14. I look forward to be involved in changing the program or area in which I work	1	2	3	4	5
Q15. I will resist any changes to the program or area in which I work (R)	1	2	3	4	5

Questionnaire survey, English source text

	Strongly agree		⟷		**Strongly disagree**
Q16. There is nothing I need to change about the way I do my job to be more efficient (R)	1	2	3	4	5
Q17. The program or area in which I work functions well and does not have any aspects that need changing (R)	1	2	3	4	5
Q18. I enjoy discussing my organization with people outside it	1	2	3	4	5
Q19. I really feel as if this organization's problems are my own	1	2	3	4	5
Q20. I feel like part of the family at my organization	1	2	3	4	5
Q21. This organization has a great deal of personal meaning for me	1	2	3	4	5
Q22. I do not feel a strong sense of belonging to my organization (R)	1	2	3	4	5
Q23. In my place of work, people feel uncertain regarding the future	1	2	3	4	5
Q24. In my organization, there is a clear plan/vision for the future	1	2	3	4	5
Q25. My job is secure in the future (R)	1	2	3	4	5

Appendix II

	Strongly agree		⟷		**Strongly disagree**
Q26. I don't know what my job will be in the future	1	2	3	4	5
Q27. I feel uncertainty when discussing the future with clients	1	2	3	4	5
Q28. It is impossible to predict the result of the merger	1	2	3	4	5

Thank you for your participation
Please hand me your completed survey before the end of the workday!