SOCIAL COGNITIVE FACTORS IN THE EMPOWERMENT OF MEXICAN EMPLOYEES

by

ENRIQUE BORES RANGEL, M.A

Ph. D.

MAY, 1998
Research studies in the relationship between such empowering interventions as employee participation in decision making and quality circles present mixed results. These studies have typically conceptualized the relationship between managerial interventions and employees’ responses by implicitly using a “black box” for the employee. As an alternative, Bandura’s (1986) social cognitive theory proposes that employees’ psychological internal mechanisms mediate in between organizational interventions and employee’s outcomes. Based in this theory, a social, cognitive and affective model that incorporates social, cognitive and affective assessments was proposed to understand the elements determining employees’ empowerment. These are assessments of the self in relation to 1) specific tasks on the job, 2) the social context of such tasks, 3) the job as a whole and 4) the organization. Empowerment was defined not in terms of what managers or the organization do (for instance, to delegate or to promote team work) but in motivational terms. That is, empowerment refers to improvements in employees’ social, cognitive and affective assessments of the self that are conducive to a potentiated and enriched result.
Drawing from a wide range of industries in central Mexico, from manufacturing to education, 238 white collar employees answered a questionnaire designed for the study. Factor analyses resulted in items of the questionnaire clustered as expected (except that some assessments resulted to be bi-dimensional) providing support to the structure of the model. Among the diverse assessments, only self-efficacy, meaningfulness and opportunity of realizing expectations played a major role in the prediction of affective and enactive employees’ outcomes. Such prediction was better done by social, cognitive and affective assessments than by twelve organizational interventions, providing support for the incorporation of mediating psychological assessments in understanding empowerment. Surprisingly, choice, which relates to delegation, autonomy and participation, was an assessment not playing a major role in empowerment. The results indicate that meanings, intentions and perceptions of ones’ own competence are the core elements of employee empowerment. Managers striving for higher levels of employees’ commitment, satisfaction and performance should design empowering interventions that help them to improve their self-competence perceptions by programs that convey efficacy information through progressive mastering experiences and by adequate modeling by others. Also, tasks and jobs should be enriched by incorporating employees’ expectations in such a way that they will find meaning and purpose. Further research should study blue-collar employees’ assessments, because ceiling effects could have taken place in this study due to the sample of highly educated people used.
TABLE OF CONTENTS

Chapter 1: Introduction

Purpose of the Study ........................................... 4
Importance of the Study ....................................... 4

Chapter 2: Empowerment and Social Cognitive Theory

Empowerment and the New Paradigms of Management .... 7
Social Cognitive Theory ........................................ 8
   Triadic Model of Reciprocal Determination .......... 9
   Self-Efficacy Model .......................................... 10
   Empirical Studies in Organizational Settings .... 14
   Integrative Role of the Theory .......................... 22
Definitions of Empowerment in the Literature ........... 23
   Introduction .................................................. 23
   Definitions of Empowerment in Terms of External Interventions 25
   Definitions of Empowerment Considering Personal Factors 28

Chapter 3: The Social, Cognitive and Affective Model of Empowerment

Empowerment Defined ....................................... 30
Social Cognitive Models of Empowerment ................. 31
   Conger and Kanungo’s (1988) Model of Empowerment 32
   Thomas and Velthouse’s (1990) Model of Empowerment 34
Social, Cognitive and Affective Model of Empowerment . 39
   Levels of specificity ...................................... 40
   Social, Cognitive and Affective Factors of Empowerment 46
   Self-efficacy .................................................. 54
Hypotheses ....................................................... 77
   Hypotheses for Task Assessments .................... 78
   Hypotheses for Job Assessments ...................... 78
   Hypotheses for the Comparison of Assessment Specificity Level in the Prediction of Outcomes 79
   Hypotheses for Organizational Empowering Interventions 79

Chapter 4: Method

Procedure .......................................................... 81
Sample ............................................................. 81
Measures .......................................................... 84
   Measures of Task Assessments ....................... 84
   Measures of Job Assessments ......................... 91
   Description of the Questionnaire in Social, Cognitive and Affective Assessments .......... 95
   Measures of Outcomes ................................... 96
   Measures of Organizational Interventions .......... 103
Analysis ........................................................... 106
   Testing of Hypothesis 1 .................................. 106
   Testing of Hypothesis 2 .................................. 107
   Testing of Hypotheses 3 and 4 ......................... 107
   Testing of Hypotheses 5 and 6 ......................... 107
   Testing of Hypothesis 7 .................................. 108
   Testing of Hypotheses 8 and 9 ......................... 109
Chapter 5: Results

Descriptive Statistics for Items
Factor Analyses
  Factor Analyses for Task Items
  Factor Analyses for Job Items
  Factor Analysis for Task Outcome Items
  Factor Analysis for Job Outcome Items
Descriptive Statistics for Variables
  Results for Task Variables
  Results for Job Variables
  Results for the Relationship between Task Assessments and Job Assessments
  Results for Organizational Empowering Interventions

Chapter 6: Discussion, Conclusions and Recommendations

Structure of the Empowerment Model
  Task Assessments in Relation to Task Outcomes
  Job Assessments in Relation to Job Outcomes
  Discussion of the Results for Control Variables
  Relationship Between Task and Job Assessments
  Organizational Empowering Interventions
  Conclusions
  Limitations

Appendix A: Descriptive statistics for Items
  Task self-efficacy
  Task meaningfulness
  Task choice
  Task impact
  Others' competence
  Social support
  Organizational support
  Mood
  Task involvement
  Task Performance
  Job self-efficacy
  Job Meaningfulness
  Job Choice
  Job Impact
  Opportunity
  Alignment
  Resource Access
  Job Satisfaction
  Organizational Commitment
  Extra-role Behaviors
  Remain Intentions
  Tenure
  Personal

Appendix B: Results of factor analyses

References
LIST OF TABLES

Table 1. Examples of assessments for diverse jobs, tasks and task purposes ........................................... 54
Table 2. Number and percentage of employees in the sample by age groups ........................................... 82
Table 3. Number and percentage of employees in the sample by study level .......................................... 82
Table 4. Number and percentage of employees in the sample by sector of organizations ......................... 83
Table 5. Number and percentage of employees in the sample by total of employees at location ............. 83
Table 6. Number and percentage of employees in the sample by organization's origin of capital .......... 83
Table 7. Cronbach's alpha values for variables in the study ..................................................................... 111
Table 8. Underlying dimensions of the model of empowerment as found by factor analyses ................. 119
Table 9. Descriptive statistics for main variables in the study ................................................................. 121
Table 10. Pearson's correlation coefficient matrix for Task variables ................................................... 122
Table 11. Pearson's correlation coefficient matrix for Job variables ..................................................... 122
Table 12. Degrees of freedom for hierarchical multiple regression analyses of task outcomes .......... 122
Table 13. Results of regression analyses for task outcome variables presented by steps ...................... 124
Table 14. Beta weights for predictors of task outcomes in hierarchical regression analyses ................... 125
Table 15. Degrees of freedom for hierarchical multiple regression analyses of job outcomes ............... 126
Table 16. Results of hierarchical regression analyses for job outcome variables by steps ..................... 127
Table 17. Beta weights for predictors of job outcomes in hierarchical regression analyses .................... 128
Table 18. Significance of the difference on the multiple coefficient of determination changes for task vs. job assessments in the prediction of task-outcomes .............................................. 130
Table 19. Significance of the difference on the multiple coefficient of determination changes for task vs. job assessments in the prediction of job-outcomes .............................................. 131
Table 20. Significance of the difference of multiple regression coefficients for interventions and assessments in the prediction of task-outcomes ............................................... 134
Table 21. Significance of the difference of multiple regression coefficients for interventions and assessments in the prediction of job-outcomes ............................................... 135
Table 22. Multivariate mean difference (MANOVA) between organizations implementing empowering interventions and organizations not implementing them ................................................. 136
Table 23. Post hoc ANOVA for interventions with significant differences in Task assessments ............. 137
Table 24. Post hoc ANOVA for interventions in Job assessments ......................................................... 138
Table A1. Descriptive statistics for items in task-self variables ............................................................. 157
Table A2. Descriptive statistics for items in context-self variables ....................................................... 158
Table A3. Descriptive statistics for items in task-outcome variables ..................................................... 159
Table A4. Descriptive statistics for items in job-self variables ............................................................... 160
Table A5. Descriptive statistics for items in organization-self variables ................................................ 161
Table A6. Descriptive statistics for items in job-outcome variables ...................................................... 162
Table A7. Descriptive statistics for items in control variables ................................................................. 163
Table A8. Frequencies for Empowering Interventions ........................................................................... 163
Table A9. Frequencies for qualifiers of Empowering Interventions ...................................................... 163
Table B1. Varimax Rotated Factor Matrix for Task items ..................................................................... 164
Table B2. Final Statistics of Varimax Rotated Factor Matrix for Task items ........................................ 165
Table B3. Varimax Rotated Factor Matrix for Job items ....................................................................... 166
Table B4. Final Statistics of Varimax Rotated Factor Matrix for Job items ........................................ 167
Table B5. Varimax Rotated Factor Matrix for task-outcome items ...................................................... 168
Table B6. Final Statistics of Varimax Rotated Factor Matrix for task-outcome items ........................ 169
Table B7. Varimax Rotated Factor Matrix for job-outcomes items ..................................................... 170
Table B8. Final Statistics of Varimax Rotated Factor Matrix for job-outcome items ........................... 171
LIST OF FIGURES

Figure 1. Black-box model of employee’s response ................................................................. 3
Figure 2. Model incorporating mediating psychological mechanisms ................................. 3
Figure 3. Bandura’s (1986) triadic model of reciprocal determination ............................... 9
Figure 4. Representation of the difference between self-efficacy and outcome expectancy
    (Bandura, 1977a, with some changes) ............................................................................... 11
Figure 5. Social cognitive model of empowerment ............................................................... 31
Figure 6. Conger & Kanungo’s (1988, p. 475) model of empowering (With some modifications) .... 33
Figure 7. Thomas and Velthouse’s (1990) cognitive model of empowerment
    (With some modifications) ................................................................................................ 35
Figure 8. Social, cognitive and affective model of empowerment ........................................... 38
Figure 9. The River of Personal Empowerment ..................................................................... 45
Figure 10. Social, cognitive and affective factors of empowerment ........................................ 47
Figure 11. Assessments as relationships between intervening elements ............................... 53
Figure 12. Social, cognitive and affective factors of empowerment
    with global assessments included ...................................................................................... 67
Figure 13. Independence of both dimensions of competence: others’ shortcomings
    and others competence .................................................................................................... 143
Chapter 1:

Introduction

It has frequently been said that organizations need to rely on an empowered workforce to face the strong competition of global markets and the changing conditions of high velocity and turbulent environments (Bennis, 1984; Bowen & Lawler, 1992; Conger, 1989). Empowerment is seen as one of the necessary means to achieve high levels of profitability and fast responses to evolving customer demands and to other changes in the dimensions of competition.

It has not been until recently that theory has been emerging about how it is that empowerment works for individuals in the work place (Conger & Kanungo, 1988; and Thomas & Velthouse, 1990). The emergent theory in empowerment has considered factors that are internal to the individual as key elements of empowerment. These factors, which are social, cognitive and affective in nature, mediate between the environment and the individual’s response. The underlying psychological model used by the emergent theory of empowerment is best traced to Bandura’s (1986) social cognitive theory.

Bandura’s (1986) Social Cognitive Theory has gained acceptance as a model to explain and predict human beings’ learning and behavior (Hergenhahn, 1982). Various aspects of the theory have successfully been tested in clinical and academic settings. The self-efficacy model, a central part of the theory, has widely been studied in such diverse areas as anxiety and phobia (e.g., Kent & Gibbons, 1987; Lee, 1984b), depressive affect (Davis & Yates, 1982), sports (Feltz, 1982), health (O’Leary, 1985), assertiveness (e.g., Lee, 1984a), achievement behavior (e.g., Campbell & Hackett, 1986; Schunk, 1984; 1985), career issues (e.g., Bores-Rangel,
Church, Szendre & Reeves, 1990; Lapan, Boggs & Morrill, 1989; Lent & Hackett, 1987) and dissenting (Parker, 1993).

Social cognitive theory has important implications for research in the field of organizational behavior. Except by a few studies (e.g., Burnaska, 1976, Moses & Ritchie, 1976), it has been just recently that the theory was conceptually presented (Gist, 1987; Wood & Bandura, 1989) and empirically tested (e.g., Ackerman & Kanfer, 1993; Eden & Aviram, 1993; Frayne & Latham, 1987; Latham & Frayne, 1989; Mitchell, et al. (1994); Stevens, Bavetta, & Gist, 1993) in the field. The theory is a promising model to understand the process of employees’ empowerment.

Empowerment is often presented in the literature of practitioners as a series of managerial interventions that promote employee’s participation in decision making at diverse levels of involvement, from delegation to self-managed teams. However, research in the relationship between organizational interventions and employee behavior frequently presents mixed results. For instance, studies do not appear to show a clear link between participation and employee productivity (Barrick & Alexander, 1987; Locke & Schweiger, 1979).

Studies in employee participation implicitly assume an underlying “black box” model (see Figure 1) that does not consider in the analysis the mediating psychological mechanisms working between the external influences and the employee’s behavior. A model incorporating mediating personal factors (see Figure 2) may prove to be crucial in the relationship between intended empowering interventions by managers and the results in empowered individuals as manifested by their covert behavior (e.g., motivation, satisfaction) and overt responses (e.g., effort, resiliency).
Although there is a great potential in the emergent paradigms of empowerment, research studies in the field are scant (Ford & Fottler, 1995; Fulford & Enz, 1995; and Spreitzer, 1992) and there is not enough empirical evidence regarding the validity of the theory. Furthermore, the literature of practitioners on empowerment contains an unorganized set of definitions and concepts referring to diverse aspects of the phenomena. Sometimes the word empowerment is used to refer to the means to empower and other times to employees' responses. It is necessary to
introduce some order in the use of terms and to clarify how empowerment works for the individual.

In summary, an emergent theory of empowerment, based on Bandura's (1986) social cognitive theory, offers a promising model to understand the phenomenon of empowerment by incorporating mediating psychological mechanisms into the analysis. However, empirical research is needed to validate the diverse social, cognitive and affective factors that determine whether individuals end up empowered in their job.

**Purpose of the Study**

The purpose of this study was to investigate the relationship between 1) Employee's social, cognitive and affective assessments of the self in relation to the job and 2) employee's task/job outcomes. Assessments and outcomes are two out of three elements of the social cognitive model of empowerment presented below, which is based on Bandura's (1986) triadic model of reciprocal determination.

**Importance of the Study**

This study contributes to the emerging theory of empowerment. It incorporated mediating psychological factors affecting individuals in their job behavior (see Figure 2). This approach has been recently addressed by research (Fulford & Enz, 1995; and Spreitzer, 1992). The study adds to the body of research validating social cognitive theory. By doing the study in Mexico, the results are directly of interest both to Mexican nationals studying management and to people in other countries interested in transferability of business concepts and theory.

Considering the popularity of the concept of empowerment among managers, writers and business consultants, there is a need to provide empirical support. The
emerging theory of empowerment is also in the need of more empirical support. This study clarifies the phenomena of empowerment from a research point of view.

It is not very common that studies of employee responses to managerial interventions consider the psychological mechanisms mediating between interventions and employee outcomes (see Figure 2). Most studies implicitly assume a "black box" model (see Figure 1) in which only individual inputs and outputs are incorporated, frequently yielding mixed results. This study will contribute by studying the role of internal mechanisms in the determination of employees behavior.

Bandura’s (1986) Social Cognitive Theory presents a promising model to understand organizational processes and interventions. In fact, its use in management research has increased during the last years. However, most studies have included only a limited number of elements of the theory. This study provided more elements for the validation of the theory in the field of management by incorporating in the analysis diverse variables proposed by social cognitive theory.

Serious research in empowering managerial approaches is scant in Mexico. Studies are needed in the field to help both practitioners and academicians to understand how it is that diverse factors related to organizational behavior and the human element function under such managerial practices.

In addition, results of research in different settings and countries from those where most of the studies in management have been done are of interest not only to local managers and academicians but also to people interested in the transferability and generalizability of accepted managerial models across cultures. This is particularly true in a world moving toward a global economy, where an understanding of organizational behavior in diverse cultural and geographic contexts is necessary.
Mexican managers, company owners, other members of organizations, practitioners and academicians will benefit most from a study investigating the social, cognitive and affective factors that determine how Mexican employees become empowered.
Chapter 2:
Empowerment and Social Cognitive Theory

Empowerment and the New Paradigms of Management

Empowerment is at the core of the new paradigms of management. Most writers in total quality management, re-engineering, just in time approaches, and other recent management trends point out the importance of empowering people in the organization to have the program be successful. Empowerment is about focusing on people in the organization.

The strong competition that organizations are facing today is requiring them to achieve a more efficient use of resources and an increase of productivity. To accomplish these objectives, a series of management theories and practices have been proposed, some of them trying to learn from the Japanese business success story of the 80’s (Sullivan, 1992) and others doing that from the Western experience (Peters & Waterman, 1982; Peters, 1989). As a consequence, some models of management have appeared, such as Japanese management, total quality management (Berry, 1991), just in time systems (Holanda, 1993) and theory Z (Ouchi, 1979), among others. These models were originally introduced to Mexico by transnational companies with plants in the country and have been implemented by an increasing number of national companies.

The new management paradigms demand transformations at all parts of the organization, particularly at the level of the human element. Organizations are turning toward more participative and team oriented structures and styles of management as a means to increase efficiency and enhance employee motivation. One of the
arguments is that top-down vertical, tight supervisory management results in such non-desirable outcomes as reduced initiative, resistance, low morale, and conformism (Hackman, 1986). Stressing that it is necessary to have an empowered work-force, diverse empowering practices have appeared. Among the most popular are employee involvement, team work (Olmedo, 1994), workers' participation (Stanton, 1993), long term commitment (Schuler & Harris, 1992), job enrichment (Cunningham, 1989), self-managed teams and clan control (Ouchi, 1979).

The conceptual models are neither new nor Eastern. Some Japanese organizations have become highly successful by applying Western concepts regarding participation and group work as early as the first Deming and Juran seminars in Japan in the fifties (Ishikawa, 1985). Companies in the West have been trying to implement such models, but not without problems. However, there seems to be a common opinion that we need empowering companies that result in empowered people inside them if we are to remain competitive in today markets.

Although there is a jungle of confusion in management theory (Koontz, 1989) and it is not easy or maybe even possible to integrate the diverse proposals, some commonalties may be found in the arising new paradigms. Akotuf (1992) pointed out that there is a convergence of these "second wind" management models toward the restoring of the human factor to the main place in the organizational performance of competitiveness and productivity. That is what empowerment is all about: focusing on people as the center of organizations.

**Social Cognitive Theory**

Because it is a useful tool to understand individuals' behavior, Bandura's (1986) Social Cognitive theory is helpful to the study of empowerment. Social cognitive theory is an alternative to theories that consider the individual as either 1)
automatically controlled by the environment or 2) determined by inner drives or needs. Instead of any external or internal determinants of behavior, social cognitive theory introduces a triadic model of reciprocal determination to explain psycho-social and learning processes, and self-efficacy as the main psychological mechanism taking place during such processes.

**Triadic Model of Reciprocal Determination**

The triadic model of reciprocal determination distinguishes among three elements in human functioning: 1) individuals' environment, 2) their cognitions and other personal factors, 3) and their behavior (see Figure 3). More specifically, the model proposes that there is a bi-directional determination among behavior, the environment and such personal factors as cognitions and affect, in which each of the elements influences the others (Bandura, 1986).

![Figure 3. Bandura's (1986) triadic model of reciprocal determination.](image)

The principle of reciprocal determination acknowledges that people are not passive processors of information but impose over external information their own meanings and participate in creating in the environment, particularly the social one, the reality they relate with (Mahoney, 1988; Parker, 1993). In fact, social cognitive
theory especially emphasizes cognitive, vicarious, self-regulatory and self-reflective processes (Wood & Bandura, 1989).

**Self-Efficacy Model**

Social cognitive theory presents perceptions of self-efficacy as one of the central self-regulatory mechanisms that controls motivation and performance attainments (Wood & Bandura, 1989). It is proposed that although knowledge, transformational operations, and component skills are important for performance, they are not sufficient: self-referent thoughts (that is, social, cognitive and affective assessments), mainly perceptions of self-efficacy, are present as mediators inbetween knowledge and performance (Bandura, 1982). The theory proposes that if adequate incentives and skills are present, self-efficacy expectations determine whether a course of action is initiated, how much effort will be invested, and how much to persist in facing obstacles when pursuing the desired outcomes (Bandura, 1977a).

Bandura’s first definition of perception of self-efficacy, “the conviction that one can successfully execute the behavior required to produce outcomes” (Bandura, 1977a, p. 193), was challenged to higher clarity and precision (Eastman & Marzillier, 1984; Marzillier & Eastman, 1984) and redefined as “people’s judgments of their capabilities to organize and execute courses of action required to attain designed types of performances” (Bandura, 1986, p. 391). One of the most recent definitions is:

> People’s beliefs in their capabilities to mobilize the motivation, cognitive resources, and courses of action needed to exercise control over events in their lives” (Wood & Bandura, 1989, p. 364).

Self-efficacy is something more that an evaluation of one’s own isolated capabilities. Self-efficacy implies orchestration (Gist & Mitchell, 1992): It is an
assessment whether I am able to orchestrate capabilities, cognitive resources, and motivational factors to maintain the necessary course of action.

Social cognitive theory distinguishes between self-efficacy beliefs and outcome expectations, a term defined to clarify some confusion with Rotter’s social learning theory. Outcome expectancy refers to the beliefs about which behaviors produce particular outcomes. They are more a matter of knowledge of the environment, “what leads to what” (Bandura, 1978, p. 238) and which kind of behavior is important to perform determined tasks and accomplish specific goals. On the other side, self-efficacy expectancies are more a matter of knowledge about the one’s own self and what can I do. People may perfectly know which course of action to follow to obtain determined outcomes but they may believe they lack the capabilities to do so. As a consequence, they may decide to take no action in the direction of the outcomes (Bandura, 1977a). Outcome expectancy refers to the instrumentality of the behavior in the reaching of outcomes; whereas, self-efficacy perceptions refers to the assessment of the person in relation to the required behavior (see Figure 4).

Figure 4. Representation of the difference between self-efficacy and outcome expectancy (Bandura, 1977a, with some changes).
Although Bandura has not given too much attention to the construct in clinical environments, outcome expectancies are important to promote empowerment in organizational settings because people need to have an accurate picture of which kinds of responses are required to obtain the desired outcomes. In fact, lack of feedback, communication and information can bring personal impoverishment.

Social cognitive theory proposes that learning occurs symbolically by processing the information coming from observing both one’s and others' behavior, and its environmental contingencies (Bandura, 1977a). Through observation and symbolic processing, people discover which patterns of behavior under determined circumstances are more likely of being successful, and which ones will be conducive to negative consequences; all of this without necessarily behaving.

Self-efficacy perceptions are learned like any other kind of cognition. They are products of cognitive processing of information coming from four sources: mastery experiences, modeling, social persuasion and physiological states (Wood & Bandura, 1989).

Mastery experiences --also named performance accomplishments (Bandura, 1977a) and enactive attainments (Bandura, 1982)-- are the strongest source of information and refers to the experiencing of success because of one’s behavior. Repeated lack of success, especially at early experiences, can cause low self-efficacy expectations.

Modeling is an observational learning phenomenon. It works by vicarious experiences modifying efficacy expectations through the observation of others’ accomplishments. The informative value of this source is higher when observing several models judged to be similar to oneself.
Bandura (1986) presented guided mastery modeling as an effective way to learn intellectual, social and behavioral abilities. The steps are as follows: first, the relevant skills are modeled and general rules and strategies are taught. Second, a guided practice of the observed skills takes place in simulated environments. Finally, individuals go through a transfer program that guarantees success. Part of the rationale underlying this method is expressed by the following statement: “...cognitive events are induced and altered most readily by experience of mastery arising from effective performance” (Bandura, 1977a, p. 191). Guided mastery modeling may be helpful to accomplish organizational change through empowerment considering that such interventions require the acquisition of new attitudes and behaviors by employees.

Social or verbal persuasion is frequently used by those attempting to influence others’ efficacy beliefs because it is easy and socially acceptable. However, disaffirming experiences can easily diminish any increases in perceptions of self-efficacy coming from this source. It is not uncommon for managers attempting to empower employees to use in isolation verbal persuasion, disregarding more vigorous sources of efficacy perception.

Finally, the emotional responses of the organism also provide information, particularly when the tasks imply strong physiological arousal; for instance, coping with threatening events (Bandura, 1986). The individual may process the physiological reactions to stressing events as either evidence of power or as a signal of incompetence. It has been stated that anxiety correlates negatively with efficacy expectations (Betz & Hackett, 1983).

The effects of information in self-efficacy expectations depend not only on the content of the message but also on how it is cognitively appraised. Even information from successful performance may have low impact due to discriminatory
processes, and attribution of one's behaviors to external factors and to the degree of
difficulty of the task. Similarly, the effect of modeling is moderated by perceived
models' characteristics and degree of identification with the model. In the same way,
the effects of social persuasion on increasing self-efficacy are determined by the
perceived credibility, prestige, and trustworthiness of the messenger (Bandura,
1977a). Thus, employees' preferred cognitive styles used in processing information
are important determinants of self-referent behaviors.

**Empirical Studies in Organizational Settings**

There are some social cognitive empirical studies in organizational settings.
Some of them have shown a positive relationship between modeling and behavior
performance (Burnaska, 1976; Decker, 1983; and Meyer & Raich, 1983). It has also
been found that modeling negative performance leads to low self-efficacy and
performance (Brown & Inouye, 1978).

Jones (1986), studying socialization of newcomers to organizations, analyzed
the moderating role of newcomer's self-efficacy about mastery of role and
organizational requirements in the relationship between socialization practices of the
organization and role orientation. Role orientation was defined as "the manner in
which individuals perform their roles and adjust to task requirements" (p. 263). It
ranged from an innovative orientation (newcomers try to change role procedures) to a
custodial orientation (acceptance of organization's guidelines for the role).

Jones (1986) study found that the correlation between self-efficacy and role
orientation was significant but low. However, results showed significant differences
between high self-efficacy newcomers and low self-efficacy ones in the correlation
of socialization practices with role orientation. This suggests that high self-efficacy
newcomers tend to rely more in themselves in adjusting to the role and the
organization and low self-efficacy employees tend to define situations according to the dictates of the organization.

A serious drawback of the study was a very low response rate. Although the author argues analyses of the sample showed that subjects' distribution by business areas resembled the distribution of the original, it is very probable that several unresponsive subjects were systematically different regarding the variables of the study (low self-efficacy, quitting the job, low job satisfaction, etc.)

In Jones' (1986) study, self-efficacy was significantly negative in relation to both commitment and job satisfaction, and positive in relation to intentions to quit. Although Jones did not discuss the implications of such results, they suggest that people who have very high confidence in their capabilities to be successful may not feel challenged any more to perform and they have to set higher goals to remain motivated. This might be true considering that Jones' subjects were newcomers-to-organizations MBA students, who probably are people leaded by high-level incentives and expectations.

This provides support to the idea that behavior does not depend on isolated assessments as self-efficacy, but on an array of mutually influencing variables, as it is later proposed for the social cognitive model of personal empowerment. Mitchell and colleagues (1994) presented evidence that the role of both self-efficacy perceptions and goals in determining performance changes during the process of skill acquisition.

Frayne and Latham (1987; Latham & Frayne, 1989) have applied social cognitive theory to such an elusive area as job attendance. Previously, Johns and Nicholson (1982) found that absenteeism was not really explained, predicted, nor regulated. The study tested a job-attendance self-management training program based on the social cognitive constructs of self-efficacy and outcome expectancy.
One of the precepts underlying the self-management intervention of the study were that “people who come to work judge themselves as efficacious (Bandura, 1977, 1986) in coping with environmental demands (e.g., supervisory conflict, peer pressure, family obligations, transportation issues, illness), whereas those who do not come to work perceive themselves as inefficacious” (Latham & Frayne, 1989, pp. 411-412). The other precept was that, because they were considered poor employees, their outcome expectancies included the belief that neither manager nor peers would change in opinion even after changing their job attendance habits (Frayne & Latham, 1987).

People in the training group significantly increased their job attendance and self-efficacy perceptions three, six, nine and 12 months after the pretraining measurement, whereas the control group remained without change (Frayne & Latham, 1987). In the last term, the control group was also trained resulting in significant increases of both job attendance and self-efficacy (Latham & Frayne, 1989). However, outcome expectancies did not increase significantly in the 1987 study and it was not incorporated in the 1989 one. The authors argued that this could be so because outcome expectancies were high before the study.

Frayne and Latham’s (1987, Latham & Frayne, 1989) research studies resulted in strong support for social cognitive theory. The intervention clearly was empowering for employees and beneficial for the organization, because employees ended up with a feeling of being more powerful and in control of their own circumstances, at the same time that the organization was in a better of position after having more attendant employees.

Podsakoff and Farh (1989) tested some aspects of social cognitive theory by having subjects write as many adjectives as they could after seeing a stimulus word. Negative feedback provided between a first and a second trial resulted in higher
performance increases compared with increases of the positive-feedback and control groups. The results provide support for social cognitive statement that when individuals do not accomplish their performance expectations a self-evaluative mechanism creates dissatisfaction, which works as a motivational force to attain individuals' internal goals and standards.

Podsakoff and Farh's (1989) study did not find any effect of feedback sign in subjects' self-efficacy after doing ANCOVA with the first period performance score as covariate. The authors justify this by arguing that they did not have a fair test of feedback effects on self-efficacy because they measured self-efficacy in absolute terms but provided feedback in a relative way (subjects were provided feedback according to their random group membership and not according to their performance). However, the major problem with the study might be that subjects' self-efficacy was measured in one shot instead of measuring their self-efficacy increases after providing feedback. It is a mistake to consider that feedback produces a determined level of self-efficacy and not that feedback increases it. Self-efficacy changes should be measured instead of self-efficacy level.

As predicted by the theory, path analyses in Podsakoff and Farh's (1989) study revealed that ability had a direct effect in self-efficacy, personal goals and performance. Although the authors were somewhat surprised with the effect of ability in the level of personal goals, it only reveals that subjects were both accurate in assessing their abilities (related to self-efficacy) and congruent in fixing goals. The analyses also revealed a direct effect of self-efficacy in personal goals and performance. Finally, feedback had an effect in performance and self-satisfaction, and self-satisfaction had an effect in personal goals. Almost all of these results are in the direction predicted by social cognitive theory, except by the apparent null effects of feedback on self-efficacy. However, the study was an experiment with a very
simple task to perform, making it difficult to generalize the result to organizational settings.

Wood and Bandura (1989) conducted a series of experiments that incorporated the complexity of organizations. They worked with simulated environments where supervisors had to take decisions involving diverse levels of organizational complexity as determined by a different number of factors in consideration. They analyzed the relationships among managers’ prior performance, perceived self-efficacy, personal goals, quality of analytic strategies and subsequent performance, in two successive stages.

In the first stage, when the managerial task was new for the subjects in the study, the managers relied more in past performance than in self-efficacy to perform. However, self-efficacy had direct effect in the level of personal goals and in the quality of analytic strategies, and these in turn had a direct effect in performance. In the second stage, when subjects were familiar with the managerial task, self-efficacy had a direct effect in performance, personal goals and analytic strategies. There was not a direct effect of either prior performance in personal goals or personal goals in subsequent performance, indicating that subjects relied more in self-efficacy.

Wood and Bandura’s (1989) results were in support of the theory; however, there are some questions about the consistency of the relationship between the diverse cognitive and behavior factors. The main question is when self-efficacy is more relevant than the other factors in predicting performance.

Regarding observational learning, several studies has been conducted. One study (Gist, 1989) showed that modeling of cognitive functioning in idea generation improves self-efficacy, and this in turn has an impact in performance; that is, number of ideas generated. Both effects were very superior to those reached through an
alternative procedure based on lecturing. In other study (Gist, Schwoerer, & Rosen's, 1989), modeling, as compared to computer-aided instruction, was a better method of training in computer software regarding both trainees’ performance and software self-efficacy. Also, pre-training computer self-efficacy was a predictor of computer software mastery. Modeling was particularly better than computer-aided instruction in the results in software self-efficacy of trainees with initial low computer self-efficacy.

Differential results of empowering interventions due to diverse self-efficacy levels has also been found by other studies. For instance, Eden and Aviram (1993) studied the moderating role of initial self-efficacy on the effects of boasting self-efficacy in job-search activity and in reemployment for unemployed participants of a workshop. The results confirmed that self-efficacy increases relate to both higher job-search activity and reemployment, the relationships being higher for people with low initial self-efficacy.

Because training is a frequently used means to empower individuals and organizations, the study of factors determining its success is important. Other studies have focused social cognitive variables in the effectiveness of training. For instance, self-efficacy regarding a series of abilities needed to be successful in training (e.g., learning, studying, performing in test situations) had predictive validity in a training program for air traffic controllers (Ackerman & Kanfer, 1993). Because self-efficacy was relatively low related to measures of ability, it added predictive value to these, with the advantage that it only took three minutes to apply. In addition, post-training measures showed a significant increase in the correlations between self-efficacy and task-performance, indicating a responsiveness of self-efficacy to training, as predicted by social cognitive theory.

In other study (Morrison & Brantner, 1992), self-efficacy was among the factors enhancing learning a new position in the job. Subordinate’s competence, job
challenge, job significance, and role clarity were other of the enhancing factors. Interestingly, job significance affected self-efficacy. Then, job significance had both a direct and indirect effect on learning.

However, other studies have not presented results so positive. Noe and Wilk (1993) studied which factors determined employees’ participation in training activities such as courses and seminars. Self-efficacy was not a significant predictor of participation, but both motivation to learn and social support from managers and peers were. The self-efficacy measured in the study was not a specific one about participation in training activities, as social cognitive theory proposes, but it was a more generalized self-efficacy across wide range of skills and abilities. Social cognitive theory will propose that motivation to learn and willingness to participate in courses and seminars depend on employees’ beliefs that they can orchestrate all the specific actions necessary to be successful in those courses and seminars. Then, self-efficacy measures should ask subjects directly for perceptions about such actions.

More specifically about learning processes, Eyring, Johnson and Francis’ (1993) study focused the effect of self-efficacy, cognitive ability, and task familiarity in determining the shape of the learning curve during cognitive skill acquisition. The three variables were significantly related to the slope of the curve in such a way that subjects with higher levels of them had a more pronounced slope, indicating they learned faster. The high of the curve’s asymptote, that is, the highest amount of skill attained by subjects, was predicted only by self-efficacy. These results provide strong support for social cognitive theory hypothesis that self-efficacy affects performance. It also provides further information about how performance is affected in comparison with actual ability. “Ability has a significantly stronger effect early in task practice than later whereas self-efficacy has a strong effect throughout, accounting for the asymptotic effect” (p. 812).
The role of goal-setting in relation to social cognitive theory has also been studied in organizational settings. For instance; by an experiment, Earley and Erez (1991) explored the effects of externally assigned goals and norms in performance through the mediation of personal goals and self-efficacy beliefs. Norms were operationalized as information provided to the subjects about how well other subjects did in the past. Assigned goals and presented norms affected both personal goals and self-efficacy; and, when they both generated personal goals, performance was also predicted. In addition, personal goals and self-efficacy also had a positive effect on performance. Finally, when assigned goals and norms convey different information, the most influential of them was the most recent one.

Other studies (Gist, Stevens & Bavetta, 1991; and Stevens, Bavetta, & Gist, 1993) investigated the role of goal-setting, self-efficacy, and perceived control in the acquisition of salary negotiation skills. Changes in all three variables accounted for significant variance in gains in negotiated salaries between pre- and post-training measures; however, only perceived control remained significant after controlling for gender, training method, and negotiation session. Some support was found for the hypothesis that perceived control and self-efficacy affect goal-setting. Perceived control was operationalized in a way that resembles some aspect of outcome expectancy. The items used were: “I know what to do to succeed, I am able to influence outcomes in the negotiation, and I understand what is expected of me in the negotiation” (p. 728).

Gist (1987) has proposed that self-efficacy might be an important element for processes of selection and promotion, if it is a predictor of high performance. The same author talked about the possible relations of unrealistically high efficacy perceptions in such phenomena as groupthink (Janis, 1989). These are just some examples among several other cases of application.
Self-efficacy about critical aspects of the job and perceived control over decision making among nurses were predictors of dissent when facing adverse situations (Parker, 1993). Whereas, perceived control was negatively related to nurses’ intentions to exit, job self-efficacy was not. However, contrary to social cognitive theory proposal that self-efficacy be measured specifically directed to the predicted behavior, self-efficacy regarding the critical aspects of quitting and going to a new job was not considered.

In summary, the empirical studies of social cognitive theory in organizational settings resulted in strong support for it. However, there is still too much work to be done because the implications of the theory for the field of organizational behavior are countless, and all of them are waiting for empirical support. For instance, self-efficacy might predict self-promotion by high self-efficacy believers and permanency in a position by low self-efficacy believers. Most of the studies were experimental, and used simple tasks. We still need research to gain insight over the complex relationship among the diverse personal and environmental elements influencing human behavior inside real organizations. Field research in the area will capture the complexity of day to day functioning of organizations and will complement the results coming from experimental studies.

**Integrative Role of the Theory**

Bandura has been prone to combat rival theories of behavioral functioning and to propose his models as the ultimate alternative. However, social cognitive proposals complement very well other models and concepts such as reinforcement, goal setting, attribution, locus of control, self-worth and expectancy. In fact, Kirsch (1985) has gone as far as criticizing the self-efficacy mechanism as “old wine with new labels” (p. 824). He argued about a functional equivalence of self-efficacy theory and Rotter’s social learning theory.
Social cognitive theory has an integrative potential (Thomas & Velthouse, 1990); it does not matter who is regarded as the author and what is the final name. For example, Bandura’s reaction against behaviorist’s conception of automatic control of the environment over behavior seems to forget that learning frequently occurs in absence of learner’s awareness, as counselors and other psychotherapy practitioners know well. The conclusion is that some learning occurs automatically and other under awareness, depending on the centrality of the association in the nervous systems. Gist (1987) reviewed the model of self-efficacy and showed how it relates to diverse motivational concepts such as goal setting, feedback, intrinsic interest, expectancy theory, Pygmalion effect, locus of control and behavior modification.

Finally, social cognitive theory was used in this study as a framework to the understanding of the empowerment phenomenon because of its potential to explain such behavioral phenomenon as empowerment. Two aspects of the theory were of particular relevance: the triadic model of reciprocal determination and the self-efficacy model.

Definitions of Empowerment in the Literature

Introduction

Empowerment has become a popular word among consultants and practitioners in management (for instance, see Bennis, 1984; Covey, 1989). However, Schlesinger and Heskett (1991) pointed out that “empowerment is perhaps an overworked and underdefined term” (p. 98). There seems to be as many definitions of empowerment as authors talking about the term; although there has been some work trying to clarify the concept (Conger & Kanungo, 1988; Thomas & Velthouse, 1990). A review of the diverse definitions of empowerment is presented in this
section and then definitions of terms for this study are introduced and justified. The review uses Bandura’s (1986) model of reciprocal determination to analyze the diverse elements employed by several definitions of empowerment.

In the literature of empowerment, a great amount of confusion is raised because the word empowerment has been widely used to refer to the diverse aspects of human functioning as presented by Bandura’s (1986) model of reciprocal determination: the means or interventions used by the organization to empower (that is; the environment in Bandura’s model), the results of empowering manifested as employees’ responses (the behavior), and the internal factors of the individual, mainly psychological mechanisms, (cognitions and other personal factors). For instance, Empowering interventions (the environment) are frequently mixed up with their actual manifestation in empowered people (behavior).

As Conger and Kanungo (1988) pointed out, empowerment, as treated in the management literature, has a double meaning. On one hand, empowerment is considered a relational construct and, on the other, it is presented as a motivational one. In terms of the model of reciprocal determination (see Figure 3), a relational construct focuses on the connection between the environment and the personal factors; meanwhile, a motivational construct stresses the relationship between the personal factors and behavior.

To provide some common understanding in the definition of empowerment and also clarify the distinct treatment of the concept in the literature, it was necessary: 1) to discriminate between means (interventions) and ends (employees’ behavior), and 2) to make a distinction between what individuals perceive and feel (personal factors of empowerment) and what organizations do to promote certain behaviors and attitudes (empowering interventions). These clarifications also helps to understand how the process of empowerment works. As Bandura’s (1984) social cognitive theory
proposes, internal cognitive and affective mechanisms regulate what the individual receives from the environment and such mechanisms have a key role in the behavioral consequences of external interventions. It is as important to performance what kind of stimuli an individual receives as how such stimuli are cognitively processed. As a consequence, the process of empowerment may be better understood by using social cognitive theory.

**Definitions of Empowerment in Terms of External Interventions**

Empowerment is frequently defined in terms of elements that are external to the individual such as actions by bosses or other. Among such definitions, delegation and participation in decision making are among the most frequent correlates of empowerment. In fact, the Longman’s (1983) *Dictionary of American English* defines “to empower” as “to give (someone) a power or lawful right.” The verb used in the definition stresses what is done to the individual from outside and does not focus on the internal dynamics involved.

This definition is closely related to the idea of delegation, which is defined as one person giving to another the right to act, make decisions, ask for resources and perform other duties necessary for the responsibilities of the job (Harris, 1990). Being closely related to the concept of vertical division of labor, delegation has been studied from the very beginning of industrial organizations. This definition of empowerment, therefore, does not contribute anything new.

Empowerment is something different than delegation. In fact, under certain conditions, delegation may be an impoverishing event for the employee. For instance, if the employee feels that he or she is not ready or not capable enough to perform the delegated task, he or she may become unmotivated, less resilient and less committed.
Other definitions of empowerment equate it with employee participation in decision making. For instance, Talley (1991) says that empowerment occurs when employees are given more authority to take decisions and act on problems met in their work area. In another example, Schlesinger and Heskett (1991) accepted the common definition of empowerment as participation in decision making.

Equating empowerment with participation in decision making adds nothing new either. Schlesinger and Heskett (1991) recognized that and found a way out by using the word enfranchisement instead. This term refers to a system that gives service workers the freedom and responsibility to make decisions in their relationship with customers, tying pay to performance. The definition of enfranchisement has the advantage of recognizing a system of organizational elements being present to empower individuals but it still continues ignoring the internal elements of the individual.

Definitions of empowerment as sharing of power, like those defining empowerment as either delegation or participation, are, at least, redundant and, at worst, limiting. This meaning of empowerment provides nothing new to management theory besides what already has been said about power, delegation and participation.

It is not necessarily true that either delegation or employee participation in decision making is going to automatically make people inside businesses feel more capable and powerful (Conger & Kanungo, 1988); sometimes it may be just the opposite. In fact, participation has not been without criticism (Smither, 1991; Stanton, 1993) and mixed results from research (Locke & Schweiger, 1979; Miller & Monge, 1986; Wagner & Gooding, 1987). The problem is that such interventions are studied without considering the internal factors of the individual that processes and evaluates what is received from the environment before producing a response.
Employee participation may result in unexpected consequences regarding empowerment. If employees are given an assignment requiring levels of performance and influence very far away from those available to them through training, allocation of resources, and the like, they may become frustrated after lack of success and generate devaluing self-referent thought. Once the experience has such a negative effect on employees' cognition and affect, they will feel less confident about their work in the future. This is clearly a position of powerlessness and impoverishment; that is, unempowerment. As a conclusion, participation is not always an empowering experience. It may result in employees feeling less empowered.

Regarding research, most studies have focused on such consequences of empowerment as job satisfaction, motivation and quality of work life. Only a few (for instance, Fulford & Enz, 1995; & Spreitzer, 1992), have tried to untangle the mechanisms internal to the individual involved in specific interventions that result in employees becoming either empowered or impoverished (e.g., James & James, 1992).

In summary, definitions of empowerment as participation or sharing of power make reference exclusively to what Bandura's (1986) model of reciprocal determination refers as the environment; that is, what the organization proposes or does to the employee in form of managerial actions and organizational programs (that is, empowering interventions). These definitions do not address the internal processes that operate between 1) employees being given the opportunity to participate and 2) their feeling as more powerful and being more motivated, involved and committed to the organization's goals (Conger and Kanungo, 1988). As a consequence, it is not possible to determine under which circumstances the external-to-the-individual organizational actions are more likely to become successful.

Considering that participation and delegation are organizational variables that are external to the individual, any organizational factor that may have an impact on
the process of empowerment is named here an “**empowering intervention**”, but never “empowerment”. Job enrichment, total quality management, just in time management, ISO9000 certification procedures, training programs, and promotion of leadership, team work, or self-managed teams are examples of other empowering interventions.

**Definitions of Empowerment Considering Personal Factors**

Other definitions of empowerment in the literature incorporate elements of the individual, but most of them use **responses** of the individual excluding the internal mediating factors. For instance, Kieman (1993) said that empowerment has the purpose of motivating the manifestation of people’s intelligence and creativity:

> The idea is to provide everybody with the responsibility and the resources to display real leadership within their own individual spheres of competence, while at the same time contributing to meeting company-wide challenges (p. 14).

In the same direction, Belasco (1992) pointed out that empowerment results in responsible, highly motivated employees, who learn, grow and make decisions. Bennis (1984) defined empowerment as a collective effect of leadership that is manifested in the workplace as employees’ feeling significant, valuing learning and competence, developing a sense of community, and finding their work stimulating, fun and challenging. Thomas and Velthouse (1990) also stressed the role of outcomes in empowerment. After pointing out that one of the meanings of power is energy, they clarified that the word empowerment makes also reference to motivation. They focused particularly on the motivational content of newer nontraditional paradigms of management that “involves relaxed (or broad) controls and an emphasis on internalized commitment to the task itself” (p. 667). These definitions use two kind of employee outcomes: one is covert behavior, including such responses as
motivation and satisfaction, and the other is overt behavior, incorporating such outcomes as effort and resiliency.

Hossack’s (1993) is among the definitions addressing not only employee’s outcomes but also mediating personal factors, saying that empowerment is something more than the sharing of power (an idea emphasizing what was said about delegation and participation in decision making in the previous section) and that “empowering others involve helping them to find their own potential, and to gain the sense of confidence and autonomy necessary to make choices (p. 30)”. With a somewhat different approach, Conger and Kanungo (1988) defined empowerment as

a process of enhancing feelings of self-efficacy among organizational members through the identification of conditions that foster powerlessness and through their removal by both formal organizational practices and informal techniques of providing efficacy information” (p. 474).

Such elements as significance, sense of confidence, self-efficacy and sense of autonomy can be regarded as internal factors that mediate between organizational interventions (and other external elements) and employee outcomes.

Defining empowerment in terms of employee internal variables, particularly motivational ones, appears to be a more promising line of research instead of doing that in terms of external factors, because it reveals the mechanisms determining whether external factors result in people really feeling empowered, being motivated, committed, and energized, and exercising effort and perseverance. It affords a higher chance of contributing new insights into management practice because the definition is conducive to considering the intervening motivational, cognitive and other personal constructs determining whether organizational interventions are conducive to the kind of desired employees’ responses.
Chapter 3:
The Social, Cognitive and Affective Model of Empowerment

Empowerment Defined

As it was presented in the previous chapter, empowerment is defined in the literature distinctly by using either external inputs, mediating internal factors, or employee behavior as elements of the definition. However, Bandura (1986) proposed that human functioning is determined by the reciprocal interaction of all this three elements, as depicted by Figure 3.

Considering Bandura’s (1986) social cognitive theory, and more specifically, both the model of reciprocal determination and the model of self-efficacy, empowerment is defined as an ongoing process in which the environment, personal factors, and behavior interact to potentiate individuals inside organizations so as to increase motivation, commitment, initiative, effort, and resiliency in performance (see Figure 5).

A successful process of empowerment results in people feeling more potentiated and significant, less impoverished, gaining confidence and autonomy, developing a sense of community, finding their work stimulating, fun and challenging, and showing increased motivation, commitment, effort, and perseverance in the job place (Bennis, 1984; Conger & Kanungo, 1988; Hossack, 1993; and Thomas & Velthouse, 1990).
Considering that the phenomenon of empowerment is focused here on the point of view of the employee, the environment in Figure 3 refers mainly to the organization, which strives for changes through empowering interventions (see Figure 5); for instance, by leadership, cultural change, job enrichment, team-work implementation, total quality management, re-engineering, etc. The personal factors of empowerment are employee’s social, cognitive and affective assessments that reflects his or her internal reality or his or her perception of the self in relation to external realities: job, tasks, significant others, the organization, etc. Behavior refers to overt and covert responses by the employee. The process of empowerment works through the enhancement of the social, cognitive and affective factors of empowerment.

![Figure 5. Social cognitive model of empowerment](image)

**Social Cognitive Models of Empowerment**

Two models of empowerment that use social cognitive theory have been proposed: Conger and Kanungo’s (1988) and Thomas and Velthouse’s (1990). There are important differences between both models but they complement each other. In
this section, both models are presented as the basis for the social, cognitive and affective model of empowerment used by the present study.

**Conger and Kanungo’s (1988) Model of Empowerment**

Conger and Kanungo’s (1988) model incorporates some elements of social cognitive theory, particularly self-efficacy theory (see Figure 6). The model proposes a series of stages to promote empowerment in organizations. It starts by determining the present conditions in the organization that foster internal states of powerlessness in employees. Then, alternative managerial techniques and interventions are implemented, but in such a way that they convey information to employees regarding their efficacy, at the same time that conditions fostering powerlessness are removed. As self-efficacy beliefs become strengthened, it theorizes, people increase their productive behavior.

Conger and Kanungo’s (1988) model provides a useful guide of the steps that managers should undertake to strength employees’ self-efficacy. Particularly stage 3 incorporates elements from self-efficacy theory that enhance perceptions of efficacy. However, the model does not consider other empowering factors conveying assessments of meaning, outcomes, others’ competence, support, or control. It is not enough for an individual to feel competent (self-efficacy perception) for a person to behave in a certain way (Bores-Rangel et al. 1989). It is also necessary that people see a reason to behave, and have a purpose to perform in terms of what is meaningful to them. Personal goals, a source of meaning, are important motivators and conditionings of behavior (Bandura, 1986). The purposes can be either selfish, such as expecting a pay increase or avoiding being fired, or sublimated, such as looking for social well-being, but the opportunity to realize personal goals is a source of energy for action.
### Stage 1: Conditions leading to a psychological state of powerlessness

- Organizational factors
- Supervision
- Reward systems
- Nature of the job

### Stage 2: The use of managerial empowering strategies and techniques

- Participative management
- Goal setting
- Feedback system
- Modeling
- Contingent/Competence based reward
- Job enrichment

### Stage 3: To provide self-efficacy information to subordinates using four sources

- Enactive attainment
- Vicarious experience
- Verbal persuasion
- Emotional arousal

and

- Remove conditions listed under Stage 1

### Stage 4: Result in empowering experience of subordinate personal empowerment

- Strengthening of
  - effort performance expectancy or
  - belief in personal efficacy

### Stage 5: Leading to performance

- Initiation and persistence of behavior to accomplish task objectives

---

*Figure 6.* Conger & Kanungo’s (1988, p. 475) model of empowering (With some modifications).
In fact, social cognitive theory proposes that goal systems have an important role in the self-regulation of motivation and behavior. Similarly to goal seeking theories, social cognitive theory proposes that discrepancies between outcomes and personal standards generate motivation in direction of the goals to reduce the difference. However, this theory emphasizes that once people reach their expectations they produce new discrepancies by fixing higher standards. Goals not only are important for motivation to take place but also to guide behavior and build self-efficacy (Wood & Bandura, 1989).

As explained above, constructs conveying purpose (such as meaningfulness, interest or goal-seeking) are not excluded from the social cognitive theory; however, in practice and as promoted by Bandura, the theory has highlighted self-efficacy to such a degree that these constructs have not been fully incorporated into the model, as in Conger and Kanungo’s (1988) model. Excluding them from a model explaining human behavior has no consequences in experimental settings when participation and interest are controlled, but it has important implications in organizational settings. For instance, when people’s self-efficacy is very high, this variable loses predictive value, as Eden and Aviram (1993) found. They showed that training unemployed people in job-search and reemployment self-efficacy was successful only for those people with previous low levels of self-efficacy. For those people with high levels of self-efficacy, other factors such as meaningfulness and outcome expectancy may be more important.

**Thomas and Velthouse’s (1990) Model of Empowerment**

Thomas and Velthouse’s (1990) model is more complete than Conger and Kanungo’s (1988) regarding their coverage of self-referent thought (see Figure 7). They introduced the term “assessment” to refer to the psychological mediating mechanisms. The nature of such assessments are not only cognitive but also social
Empowering Interventions

Interpretive Styles
- Attributing
- Evaluating
- Envisioning

Environmental Events

Task Assessments
- Impact (Instrumentality)
- Competence (Self-Efficacy)
- Meaningfulness
- Choice (Influence)

Behavior
- Activity
- Concentration
- Initiative
- Resiliency
- Flexibility

Global Assessments
- Impact
- Competence
- Meaningfulness
- Choice

Figure 7. Thomas and Velthouse’s (1990) cognitive model of empowerment (With some modifications).

and affective. Besides self-efficacy, the only assessment considered in Conger and Kanungo’s model, three additional assessments were incorporated. The four assessments are presented below including the diverse synonymous used in the literature for them.
• Competence (Self-efficacy or personal mastery),
• Meaningfulness (Caring, value of the purpose, or interest),
• Choice (Influence, authority or self-determination), and
• Impact (Outcome expectancy or behavior instrumentality).

Another important characteristic of Thomas and Velthouse’s (1990) model is that the relationship between assessments and behavior is analyzed at the task level, as social cognitive theory proposes. Moreover, Thomas and Velthouse’s (1990) model strongly emphasizes internal psychological mechanisms. As depicted by Figure 7, the model only uses two boxes to refer to what is external to the individual: empowering interventions and environmental events (that is, stimuli). The remaining boxes are one for behavior and the other for diverse mechanisms of social, cognitive and affective processing of environment. The three boxes in a circle correspond to the three boxes in Bandura’s (1986) model of reciprocal determination (see Figure 3). According to the model, task and broad assessments determine employee’s outcomes.

One of the most noteworthy elements of Thomas and Velthouse’s (1990) model is the representation of the principle of reciprocal determination as depicted by the circular never ended relationship among cognitions, behavior and environmental events. Cyclical models explain vicious and virtuous cycles of self-fulfilling prophecies (Alcorn, 1992). For instance, low level self expectations conduces to low level performance, and this, in turn, to a low impact in and response from the environment, which confirms the initial low self expectations. There has been some work (Eden 1988 & 1990, Eden & Aviram, 1993) linking self-efficacy to manifestations of self-fulfilling prophecies such as the Pygmalion effect.

“Task assessments” in the model are evaluative cognitions about specific tasks. Maybe a better name is “task-self assessments” because the cognitions are not
about the task alone but about them in relation to the self. For instance, *meaningfulness* is the assessment by the employee whether the task is significant to him or her in function of his or her interests, goals and values. Another example, choice refers to the employees’ perception whether they have the resources and the authority to determine and follow the set of actions or events to accomplish the task or they feel being just a pawn and a subordinate instrument. Also, impact (Bandura’s outcome expectancy) refers to what people believe they have to do to accomplish the task.

Conger and Kanungo’s (1988) and Thomas and Velthouse’s (1990) models complement each other. The first model is very comprehensive regarding the consideration given to both empowering interventions and external determinants of people's responses. The second one provides much attention to the cognitive aspects of motivation. However, both models lack any consideration of the social determinants of behavior and motivation. That is, no one incorporates cognitive processing of perceptions about the organization and significant others in the workplace.

Cognitive assessments about social and other relevant elements of the environment are very important to understand people’s behavior inside organizations. This is not evident in such experimental settings as Bandura’s (1977) recurrent studies in snake phobia. The event of subjects increasing self-efficacy perceptions about handling snakes occurs under controlled conditions where external influences are not as relevant as they are in real life situations. If the experiment is about flying phobia, my assessment of the crew’s competence to safely fly the plane and my beliefs about the conditions of the plane are as important as self-efficacy perceptions about being calm in my seat. That resembles the situation inside organizations: organizational members make assessments regarding the competence and other
### Organizational Empowering Interventions

#### Social, Cognitive and Affective Factors of Empowerment

<table>
<thead>
<tr>
<th>Task Level</th>
<th>Job Level</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Task Self</strong></td>
<td><strong>Job Self</strong></td>
</tr>
<tr>
<td>- Task Self-Efficacy</td>
<td>- Job Self-Efficacy</td>
</tr>
<tr>
<td>- Task Meaningfulness</td>
<td>- Job Meaningfulness</td>
</tr>
<tr>
<td>- Task Choice</td>
<td>- Job Choice</td>
</tr>
<tr>
<td>- Task Impact</td>
<td>- Job Impact</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Context/Organizational-Self Assessments</th>
<th>Organization-Self Assessments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Context-Self</strong></td>
<td><strong>Opportunity</strong></td>
</tr>
<tr>
<td>- Others' Competence</td>
<td>- Alignment</td>
</tr>
<tr>
<td>- Social support</td>
<td>- Resource Access</td>
</tr>
<tr>
<td>- Organizational support</td>
<td></td>
</tr>
</tbody>
</table>

---

### Employee’s Outcomes

<table>
<thead>
<tr>
<th>Task Outcomes</th>
<th>Job Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Mood</td>
<td>- Job Satisfaction</td>
</tr>
<tr>
<td>- Task Involvement</td>
<td>- Org. Commitment</td>
</tr>
<tr>
<td>- Task Performance</td>
<td>- Extra-Role Behaviors</td>
</tr>
<tr>
<td></td>
<td>- Remain Intentions</td>
</tr>
</tbody>
</table>

Figure 8. Social, cognitive and affective model of empowerment.
aspects of work-significant others such as peers, subordinates, managers and the organization, and their responses are dependent on such assessments.

**Social, Cognitive and Affective Model of Empowerment**

A social, cognitive and affective model of empowerment was developed for the present study (see Figure 8). The model is based on Thomas and Velthouse’s (1990) model but adds cognitive processing of social and organizational elements (Context/Organizational- Self Assessments). The model incorporates the principle of reciprocal determination in which 1) organizational empowering interventions, 2) social, cognitive and affective factors of empowerment, and 3) employee’s outcomes determine each other in an ongoing mutual causation.

Considering the social, cognitive and affective model of empowerment, this study was primarily aimed at investigating the relationship between 1) the social, cognitive and affective factors of empowerment and 2) employees’ outcomes. The organizational element (empowering interventions) in Figure 8 was less emphasized in this study; although it was also included. As it is explained in a further section, the social, cognitive and affective factors of empowerment were studied at two levels of specificity: the task level and the job level. This is represented by the left and the right parts of Figure 8. The left part of both factors and outcomes includes elements that are specific about tasks, and the right part incorporates elements related to the job as a whole.

The box of “social, cognitive and affective factors of empowerment” in Figure 8 include 1) assessments of the self in relation to the task and the job at the top, and 2) assessments of the self in relation to other social and organizational contextual factors at the bottom. Each of the factors in both assessments and outcomes in Figure 8 (such as task self-efficacy, task meaningfulness, etc.) capture

Levels of specificity

Specificity of Assessments

The social, cognitive and affective model of empowerment highlighted two levels of specificity: tasks and jobs. These are depicted in Figure 8 boxes at left (task level), which represent more specific assessments and outcomes, and boxes at right (job/organizational), which refers to more broad (or general) assessments and outcomes.

Bandura’s Social Cognitive Theory proposes that assessments and behavior are presented at diverse levels of specificity and that it is important to observe the relationship between them at the corresponding levels because the relationship is stronger at more specific levels than at broader ones. The theory also proposes that if behavioral changes are to be obtained, it is necessary to change assessments at the task level. Thomas and Velthouse (1990) proposed that, at the task level, assessments are causally related to intrinsic task motivation. Intrinsically motivated people will expend high amounts of effort, will show high amounts of activity and concentration of energy upon a task, and will persist in the facing of obstacles (Bandura, 1986). Intrinsically motivated individuals also will show initiative and flexibility as obstacles and opportunities arise, always when doing the task.

The social cognitive model varies from other theories of human behavior, such as those based in self-concept, traits, and expectancies, in that the former theory attends to specific events and the latter approaches explain behavior by global factors.
According to Bandura (1986, p. 410) global theories “detract from their power to explain and to predict how people are likely to behave in particular situations”. He also pointed out that

a composite self-image may yield some modest correlations, but it is not equal to the task of predicting with any degree of accuracy the intraindividual variability in performance. Self theories have had difficulty explaining how the same self-concept can give rise to diverse types of behavior (p. 410).

This has important practical consequences in organizational settings. If a employee presents low motivation, a self-concept oriented intervention will work to increase his or her self-esteem, which may require a complex and lengthy approach such as cognitive restructuring (McKay, Davis & Fanning, 1981). Instead, social cognitive theory indicates a more pragmatic approach based in the identification, mastery and change of related assessments of the successive set of sub-tasks, that in order of difficulty, are required to be successful in performing a task. That is, the latter intervention focuses on specific tasks, such as guiding planes to safe landing by air controllers. A hierarchical arrangement of required sub-tasks is specified (for instance, interpreting signals from radar in a monitor, deciding how far a plane should be from others, communicating instructions to the plane crew, etc.). Self efficacy expectations are increased by training programs based on enactive experiences and vicarious learning through modeling advancing through the arrangement of sub-tasks.

In the field of empowerment, Thomas and Velthouse (1990) were primarily concerned with the specific level, as their definition of empowerment equated it to intrinsic task motivation. That is, they mainly focused on feelings of empowerment toward specific tasks in the job. It implies that an employee may feel empowered and motivated about a specific task, activity or project but feel unmotivated, unsatisfied and impoverished about other tasks or activities.
Thomas and Velthouse anticipated that broad assessments are also important conditionings of affective and behavioral responses in the work place. Their model incorporated, besides specific assessments, generalized assessments as moderators of task motivation (note the box “Global Assessments” in Figure 7).

**Task versus Job Assessments**

According to social cognitive theory, specific assessments are the key predictors of specific responses. However, the relationship is bi-directional because, although broad assessments are based in the historical accumulation of task assessments across diverse situations, more general assessments have also a role in determining individual’s responses. In the case of job assessments, they originate as generalizations of task assessments across diverse tasks; but, once formed, job assessments help to generate self assessments in relation to tasks, particularly in the case of novel tasks.

According to Thomas and Velthouse (1990), global assessments work as referents in the evaluation of novel situations and determine how new specific tasks are evaluated. For instance, a person who regard him or her-self as a good driver in any city in the U. S. (high driving self-efficacy) might feel confident of learning to drive in such a driving jungle as Mexico City. Self efficacy assessments are generalizable in diverse directions. For instance, from driving a car to driving any kind of wheels, or from driving under regular conditions a car to driving under rain, snow, or the like.

Differing from Thomas and Velthouse’s (1990) model, the social, cognitive and affective model of personal empowerment proposed here incorporates global assessments at the work-organizational level, instead of life-global assessments. It not only allows us to include self-referent thought at such a level but it also permits us to
embrace the knowledge that research has produced. At the work/organizational level of generality, employees make assessments about both the job and the organization. Job-self assessments have been linked to diverse behavioral manifestations in organizations. Hackman, et al’s (1989) job enrichment theory proposes that experienced meaningfulness of the work, experienced responsibility for outcomes of the work through autonomy and influence, and knowledge of the actual results of the work activities (feedback) foster high internal work motivation, high quality work performance, high satisfaction with the work, and low absenteeism and turnover.

Specificity of assessments is well documented in the case of self-efficacy (Lent and Hackett, 1987). Task self-efficacy refers to assessments of one’s own competence regarding specific task in the work; whereas job self-efficacy is a generalized assessment of the one’s efficacy to perform the job as a whole. That is, job self-efficacy refers to generalized perceptions of self-efficacy from the task level to the job level. For instance, teaching is a profession which implies diverse tasks such as lecturing, examining, counseling and coaching. Assessments of self-efficacy for a teacher are, among others, lecturing self-efficacy, examining self-efficacy, counseling self-efficacy and coaching self-efficacy. Each of these assessments are the teacher’s evaluation of his or her confidence about successfully performing each of these tasks.

Each of the assessments in task self-efficacy is relatively independent of the others. For instance, a teacher may perceive that he or she is quite capable of lecturing on a subject matter but may believe that he or she does not have the necessary skills to coach and relate positively to students on a one to one basis. On the other side, job self-efficacy for a teacher is his or her generalized perception of how good a teacher he or she is. Job self-efficacy partially develops from self-efficacy assessments about the diverse specific tasks of the job. However, as depicted in Figure 8 by horizontal
arrows between task/job assessments, the theory proposes that there is a bi-directional relationship between task assessments and job assessments (Thomas & Velthouse, 1990).

Extrapolating what has been said about specificity of self-efficacy to other elements of the model, social, cognitive and affective assessments may range from highly discrete evaluations, referring to relatively circumscribed tasks, to a much broader assessment of complex sets of activities such as the job as a whole. Thomas and Velthouse (1990) also highlighted the diverse levels of empowerment: at the lowest level, empowerment refers to intrinsic motivation toward specific tasks or projects, and, at the highest level, it relates to “more global or developmental changes in individuals” (p. 679).

**Levels of Empowerment**

Smith’s (1992) analogy for job and life satisfaction helps to illustrate the diverse levels of specificity of both assessments and outcomes. Her “River of Satisfaction” was transformed here in a “River of Personal Empowerment” (See Figure 9), in which individual events are sources of task empowerment, which in turn contributes to job empowerment. Also, all of the diverse streams of empowerment, such as family empowerment, leisure empowerment, educational empowerment, marriage empowerment, social empowerment, etc., are sources of the global experience of empowerment. The analogy is not perfect because the direction of contribution in the phenomenon of empowerment is not unidirectional as it is in a river, given that the more general expressions of empowerment are also sources of specific empowerment. For instance, an empowered teacher more easily will become empowered about novel tasks in teaching, such as, mastering a new technology to teach (for instance, multimedia).
Conclusions

Regarding the social, cognitive and affective factors of empowerment, diverse levels of assessments specificity were presented in this section. These assessments are in a continuum from very specific events to life-global aspects (explained in a section below). For instance, assessments may refer to working with a determined coworker, working with my team, working in this organization, or working in general. Another example, the assessment can be about accomplishing a specific task, doing this kind of tasks, doing this kind of work, or working in general. Regarding self-efficacy, a teacher assesses his or her ability to teach this topic to this
group today, his or her ability to teach this course to this group during a whole term, his or her ability to teach a specific course, and his or her ability to teach in general. Two levels went into the social, cognitive and affective model of empowerment proposed here: task level and job level.

Research in job motivation, job satisfaction and job performance has typically not included task perceptions but only more global constructs such as supervision satisfaction, pay satisfaction, stress, job ambiguity, monotony, ego resiliency, and the like (e.g. Cranny, Smith & Stone, 1992). Research in empowerment using social cognitive models (Fulford & Enz, 1995; & Spreitzer, 1992) has not been done either at the task level of analysis. However, social cognitive theory proposes that specific behavior depends heavily in specific assessments. According to Thomas and Velthouse (1990), task-self assessments determine intrinsic task motivation, which is similar to intrinsic work motivation, referring not to motivation about the work in general but to motivation and satisfaction about specific tasks. Furthermore, global assessments are built over specific ones. As a consequence, the whole picture of empowerment only appears when specific assessments are incorporated to the model.

**Social, Cognitive and Affective Factors of Empowerment**

In the model of Figure 8, social, cognitive and affective factors of empowerment include assessments for both 1) elements of the work itself and 2) social aspects of the job in relation to the self. (see also Figure 10, which is an exploding of the corresponding box in Figure 8). These assessments have been grouped in task/self assessments and context/organizational assessments. Each assessment is explained and defined in this section.
### Task/Job-Self Assessments

Four task/job-self assessments are frequently cited in the literature about empowerment although no single study in empowerment has distinguished between specific and generalized assessments. Those assessments refer to perceptions of Self-Efficacy, Meaningfulness, Choice, and Impact.

#### Task-Self
- **Task Self-Efficacy**
  - Can I do this task?
- **Task Meaningfulness**
  - Is this task relevant to me?
- **Task Choice**
  - Do I have autonomy in doing this task?
- **Task Impact**
  - Do my actions impact the task goals?

#### Job-Self
- **Job Self-Efficacy**
  - Am I good at this job?
- **Job Meaningfulness**
  - Is this job worthwhile to me?
- **Job Choice**
  - Do I have authority to decide about the job?
- **Job Impact**
  - Do I have a say in management?

#### Context/Organizational-Self Assessments
- **Others’ Competence**
  - Are others capable?
- **Social support**
  - Do others support me?
- **Organization support**
  - Do I get the resources for this task?

#### Organization-Self
- **Opportunity**
  - Will I find what I look for?
- **Alignment**
  - Do I fit in this organization?
- **Resource Access**
  - Do I get the resources for this job?

---

Figure 10. Social, cognitive and affective factors of empowerment
Self-Efficacy

The theory proposes that if adequate incentives and skills are present, self-efficacy expectations determine whether a course of action is initiated, how much effort will be invested, and how much to persist in facing obstacles when pursuing the outcomes (Bandura, 1977a). Then people's behavior in the work place is determined by their beliefs about their competence.

Self-efficacy has frequently been related to empowerment (Conger and Kanungo, 1988; Fulford & Enz, 1995; Spreitzer, 1992; and Thomas & Velthouse, 1990). Conger and Kanungo even equated it to this construct:

empowerment [is] a process of enhancing feelings of self-efficacy among organizational members through the identification of conditions that foster powerlessness and through their removal by both formal organizational practices and informal techniques of providing efficacy information (p. 474).

Since self-efficacy is a central construct in social cognitive theory, it has been extensively covered in various sections above. Definitions to be used in this study are presented below.

Definition of Task Self-Efficacy: Employees' "beliefs in their capabilities to mobilize the motivation, cognitive resources, and courses of action needed" (Wood & Bandura, 1989, p. 364) to perform a specific task required by the job.

Definition of Job Self-Efficacy: Employees' self-efficacy beliefs regarding the job as a whole; that is, employees' assessments of their capabilities and skills necessary to orchestrate the necessary courses of action to perform the job.

Meaningfulness

Bandura has been criticized by proposing that perceptions of self-efficacy are the only determiners of behavior (Eastman & Marzillier, 1984), but he (Bandura, 1984) has answered that self-efficacy has a central role in such determination but not
a sole one. The proposal is that underlying skills, expectancies, interests, and goals related to the available incentives are also needed. However, Bandura’s studies has always researched self-efficacy alone without including or controlling for other mechanisms.

Bandura (1986) emphasizes the purposeful characteristic of human behavior. He clearly distinguishes between learned behavior and performance. People may decide to perform the learned patterns of behavior depending on which incentive motivators are present to follow a course of action (Wood & Bandura, 1989). Then, purpose, meanings, and perceived incentives are important determinants of employees’ response, and they should be incorporated in any model of empowerment.

In fact, it is not enough for an individual to feel competent (self-efficacy perception) to behave in a certain way. It is also necessary that people see a reason to behave, and have a purpose to perform in terms of what is meaningful to them. Personal goals are important motivators and conditionings of behavior (Bandura, 1986). James and James (1992) explained that meaning in work environments refers to a cognitive valuation of external factors vis-à-vis personal standards and values (structural requirements) that determine “their significance to what one values, wants, or desires” (p. 91) and to what is conducive to ones’ well-being. The meaning of what we do provides motivation. Lack of meaning (that is, alienation) results in decreased energy.

**Definition of task meaningfulness:** Employees’ valuing “of the task goal or purpose, judged in relation to the individual’s own ideals or standards” (Thomas & Velthouse, 1990, p. 672).

**Definition of job meaningfulness:** Employees’ perception of their work as worthwhile or important according to their value system (Hackman, et al., 1989).
Choice and Impact

Choice is defined as the assessment of how much personal freedom and autonomy people think they have in initiating and regulating their own behavior and in choosing their own course of actions at the work place (Fulford & Enz, 1995; Spreitzer, 1992; Thomas & Velthouse, 1990). Impact is the assessment of the degree in which people believe they can affect or influence organizational outcomes (Spreitzer, 1992) or the ultimate objectives of a task (Thomas & Velthouse, 1990). Choice is the assessment of one's control over one's own behavior, whereas impact is an assessment of one's control over outcomes. Other names for choice are influence, authority, autonomy and self-determination, and other names for impact are outcome expectancy (Bandura, 1977a) and behavior instrumentality (Thomas & Velthouse, 1990).

The degree of autonomy, freedom, and independence that employees have in performing their job fosters high work motivation and satisfaction (Hackman, 1990; Hackman, et al. 1989; Levine, 1995). That occurs because autonomy and self-determination increase intrinsic goal orientation and task value (Garcia & Pintrich, 1991). High self-determination and autonomy also leads to such positive responses as initiative, creativity, and persistence, whereas low self-determination leads to negative mood states and tension (Thomas & Velthouse, 1990).

Job choice differs from job impact. Job choice is an expectancy of control over the initiation and maintenance of one's own behavior, while job impact is an expectancy that the own behavior has an impact on organizational functioning (Spreitzer, 1992). For instance, “piece-rate workers may control their income by how hard they work but exercise no control over the unit pay rate the system sets” (Bandura, 1986, p. 446).
Choice is also distinct from confidence. Choice is an assessment of the responsiveness of the system to my inputs, whereas competence is an assessment of my own capabilities. Bandura (1986, p. 445-446) pointed out that

People can give up trying because they seriously doubt they can do what is required. Or they may be assured of their capabilities but give up trying because they expect that their efforts will not produce any results due to an unresponsive, negatively biased or punitive social environment.

However, these assessments are probably not completely independent from each other. In fact, Fulford and Enz (1995) found no distinction between choice and impact for employees of sport clubs. Spreitzer (1992), however, found that both variables loaded on separate factors for middle managers. In fact, choice and impact are both related to control, a variable considered by Conger and Kanungo (1988) to be relevant for empowerment because lacking authority and the necessary degree of control and resources when one is held accountable is a position conducive to powerlessness. You may feel competent about accomplishing the task (task self-efficacy), and found the task worthwhile (task meaningfulness), but if you perceive that you do not have enough control to perform it (such as choice, impact or resources), you will not be as committed and persistent in pursuing the goals. Under these circumstances, you may even desist, experience frustration and become dissatisfied (Noe & Wilk, 1993).

The role of control has been documented by research. Stevens, Bavetta and Gist (1993) found that the relationship between self-efficacy and the acquisition of salary negotiation skills was moderated by perceived control. Also, Task control, “the extent to which group members can regulate their internal activities toward task achievement” (Cummings & Markus, 1974), has been highlighted as an important condition of self-regulation.
Parker (1993) pointed out that control, or perceived control, as operationalized by most research studies, is positively related to both job satisfaction and well-being. Parker’s study found support for the hypothesis that people who have high levels of perceived control over decision making will be more willing to correct things they believe are not appropriate in the organization. Spreitzer (1992) found through a series of interviews that “individuals clearly described empowered experiences as though they [were] self-initiated and self-designed, rather than ones that were ‘other-determined’ or imposed by the larger system” (p. 24).

**Definition of task choice:** the extent to which individuals believe they have enough personal freedom and autonomy in initiating and regulating their own behavior when performing the activities required by the task (Fulford & Enz, 1995; Spreitzer, 1992; Thomas & Velthouse, 1990).

**Definition of job choice:** People’s assessment of their freedom and opportunities to choose their own courses of action in the job.

**Definition of task impact:** the degree in which individuals believe their behavior makes a difference in accomplishing the purpose of the task (Thomas & Velthouse, 1990).

**Definition of job impact:** Employees’ beliefs whether they have the necessary sociopolitical control and means to effect the changes they desire in the job and the organization (Spreitzer, 1992).

**Differences Among the Diverse Task-Assessments**

Figure 11 presents diverse elements intervening when social, cognitive and affective assessments are generated by the employee when facing a task and related goals. The main actor is the person (Myself) because all assessments are generated in
relation to the self. The organization and significant others in the work place correspond in social cognitive theory to the person’s environment. Table 1 presents examples of task assessments for diverse professions: teacher, air controller, and physician.

![Diagram](image-url)

**Figure 11.** Assessments as relationships between intervening elements.
Table 1. Examples of assessments for diverse jobs, tasks and task purposes.

<table>
<thead>
<tr>
<th>Job</th>
<th>Teacher</th>
<th>Air Controller</th>
<th>Physician</th>
</tr>
</thead>
<tbody>
<tr>
<td>Task</td>
<td>To lecture</td>
<td>To guide landing</td>
<td>To diagnose</td>
</tr>
<tr>
<td>Task purpose</td>
<td>Students’ learning of subject matter</td>
<td>Safe landing of planes</td>
<td>Determine treatment; Patients’ health</td>
</tr>
<tr>
<td>Task Assessments</td>
<td>Am I able to orchestrate all of the actions needed to address this class and teach this specific subject matter?</td>
<td>Am I capable of determining positions of planes, communicate instructions, solve conflicting demands?</td>
<td>Am I able enough of question and listen patients, process information, recall knowledge, make assessments regarding health?</td>
</tr>
<tr>
<td>Self-efficacy</td>
<td>Is lecturing and helping students to learn meaningful to me?</td>
<td>Is guiding planes to safe landing important and worthwhile to me?</td>
<td>Is the process of finding an optimal treatment for patients significant?</td>
</tr>
<tr>
<td>Meaningfulness</td>
<td>Do I have enough autonomy and freedom in deciding about how to lecture?</td>
<td>Do I have enough autonomy and freedom in making decisions when guiding planes?</td>
<td>Do I have enough autonomy and freedom in deciding how to proceed when diagnosing patients?</td>
</tr>
<tr>
<td>Choice</td>
<td>Does what I do make a difference in students’ learning?</td>
<td>Does my activity have a significant role in the safe landing of planes?</td>
<td>Does my intervention really determine an optimal treatment or patients’ health?</td>
</tr>
<tr>
<td>Impact</td>
<td>Are my students smart enough? Did my assistant prepare material of quality?</td>
<td>Is this foreign pilot capable enough of following my instructions in English?</td>
<td>Do I believe this child patient is able to verbalize well what he is really experiencing?</td>
</tr>
</tbody>
</table>

Task self-efficacy is an assessment predominantly linking what I believe my capabilities are with the type of responses and demands I perceive the task demands.
(see Figure 11). Task meaningfulness is mainly the relationship between the purposes of the task and one’s own standards, values, goals and expectations. Task choice is an assessment whether I believe the organization allows me enough freedom and autonomy in performing the task. Of course, the assessing individual is who determines how much is “enough”.

Task impact is mainly an assessment about the probable effect of the task in its ultimate goals. In some cases this may be always very high, like in guiding planes by an air controller (Table 1) because there is a high dependency between the task and the results; but in others, the results may depend not only on the task but on other events, such as in the case of lecturing that is not the only event determining students’ learning. Others’ competence is an assessment of the efficacy of those people considered as important in contributing to the task and its results. For instance, teachers may assess the abilities of their students and assistants (Table 1).

Social support relates myself with those people whose emotional support is regarded as important to me. Finally, organizational support assesses to which degree I believe the organization will provide the necessary resources to perform the task.

A note of caution. Elements and assessments in Figure 11 are presented anatomically as a way of understand the differences between the diverse assessments; however, social, cognitive and affective assessments operates systemically. That is, there are not clean, independent, isolated relationships between pairs of the diverse elements depicted in the figure. For instance, self-efficacy assessments involves not only pure mechanical responses but also social ones, which depends on assessments of social support. Teachers assess their lecturing self-efficacy not only determining whether they can give an speech in front of a group but whether they will be able to get collaborative responses from each particular group they face.
In addition, elements in Figure 11 are not fixed unmoved entities because they depend on person’s cognitions. For instance, task purpose refers to what the particular individual believes or acknowledge as the ultimate goals, intentions or justification of the task. Another example, significant others refer to those people whose support is considered important by the particular individual producing the assessment, and such people may change from task to task or even from sub-task to sub-task.

**Convergence Between Job-Self Assessments and Job Characteristics**

Hackman, et al.’s (1989) study on job enrichment included variables, named “job characteristics”, that have similarities with the job-self assessments of the social, cognitive and affective model of empowerment. Job characteristics -- meaningfulness, responsibility, and feedback-- have been studied in relation to job satisfaction (Schneider, et al, 1992). Growth-need strength is a trait-like variable that was incorporated by Hackman, et al. (1989) to explain the unaccounted variance of their model in job enrichment.

Convergence between job-self assessments and job characteristics are as follows. First, as one of the job characteristics, meaningfulness was defined as employees’ perception of the work as worthwhile or important according to their value system. It resembles the definition provided here for job meaningfulness. Second, responsibility was defined as the degree of autonomy, freedom, and independence that employees have in performing their job. This is a definition similar to the definition of job choice. Third, feedback was defined as “the degree to which a worker, in carrying out the work activities required for the job, get information about the effectiveness of his [sic] efforts” (Hackman’s, et al, 1989, p. 424). Because this concept implies an assessment about one’s own behavior in relation to the results, it relates to job impact.
Thus, the three job characteristics are related to three of the four job-self assessments. The fourth self-assessment (self-efficacy) may be related to the variable growth need strength. Hackman, et al. (1989) stated that

"Not everyone is able to become internally motivated in his [sic] work ... Some people have strong needs for personal accomplishment, for learning and developing themselves beyond where they are now, from being stimulated and challenged, an so on. These people are high in "growth-need strength" (p. 425).

Although some research has found a moderating role of growth needs in the relationship between job characteristics and job satisfaction (Schneider, et al, 1992), there is still the problem of what determines people's growth needs. An alternative explanation is that the underlying relevant variable is job self-efficacy, which is a causal antecedent of such behavioral manifestations as accomplishment, learning, development, challenge and resiliency; that is, of growth needs.

As a conclusion, there seems to be convergence between job-self assessments of social, cognitive and affective model of empowerment and job characteristics of theory in job enrichment. This convergence provides some additional support to the model proposed here.

**Context/Organizational-Self Assessments**

It is not very probable that any change can take place in isolation inside organizations nowadays. Organizations are intrinsically social systems, and any individual change inside organizations requires that the relationship among all relevant actors change. For instance,

In an organizational context, a lead programmer asked if he or she is capable of completing a large software project within a certain schedule would consider factors such as whether others who are working on interdependent subcomponents of the program will complete their portions on time, whether user time is required on the hardware to fully test the software and so on (Gist & Mitchell, 1992, p. 193).
Empowered individuals will clearly perceive the level of interdependency in their life. For instance, Noe and Wilk (1993) found that social support from peers and managers was important in determining employees' participation in development activities such as courses and seminars. To commit themselves to a course of action inside complex social situations, where tasks do not depend on acts by separated individuals but in the collaboration of interdependent actors, people assess where task-significant-others stand. Task-significant-others can be the boss, other superiors, peers, collaborators and even external people that belong to what Kotter (1989) calls social networks. Who the particular actors are depends on who is regarded as relevant to the specific task in question by the employee making the assessment. My assessments of significant-others are based on information coming from my own experience with the specific people involved, the way they have related with me and with others, what other people say, and what I feel about them or the group to which I perceive they belong.

Cognitive assessments about social and other relevant contextual elements in relation to the self are very important to understand people’s behavior inside organizations. As it was explained before, this is not evident in such experimental settings as Bandura’s (1977a) studies in snake phobia. Inside organizations, its members not only make assessments regarding their own competence, but also about the competence and diverse aspects of work-significant others such as peers, subordinates, managers and the organization.

Context-self assessments are social, cognitive and affective appraisals of the self in relation to the social and organizational context of the task. Organization-self assessments are appraisals of the self in relation to the organization in the environment of the job as a whole. Both type of assessments are presented below.
Context-Self Assessments

As well as task-self assessments, context self-assessments have an impact in employees' covert and overt behavior, such as being or not being stressed, motivated, committed, and the like. Two contextual elements are considered here: people (task-significant others) and resources. Task-significant others are people whose collaboration, input and support are regarded by the employee as important to successfully accomplish the task. Two assessments, others' competence and social support, refer to subjects' assessments of task-significant others. Each of these variables imply two complementary assessments: who are regarded as task-significant other and how capable or supportive they are.

Others' Competence

When facing a goal and a task, employees determine who are those people whose collaboration is relevant for the accomplishment of the task, and, for all of them, they assess the degree of involved interdependence (Gist & Mitchell, 1992). This is similar to what the sociotechnical approach defines as task dependency: “the interrelation of tasks on which two or more people work together” (Cummings & Markus, 1974, p. 67). People whose participation is regarded as highly significant to pursue the expected outcomes are named here task-significant others. Employees assess whether significant others’ competence is up at the required level to accomplish the objective. The content of perceptions of others’ competence is not only their actual abilities and knowledge but also their potential to learn, cope and endure, as required and allowed by the situation. The assessment responds to the question: do I believe that these people will be able to commit the necessary cognitive, affective and behavioral resources and be resilient in doing so until completing of the task?
**Definition of others’ competence**: Employees’ assessments of the competence of the people whose collaboration they believe is important for the accomplishment of the task.

**Social Support**

People's response to a collaborative task depends on their perceived likelihood that task-significant others are supportive. The kind of collaboration people believe they need from others ranges from providing knowledge or resources to giving emotional support. For instance, Schneider, Gunnarson, and Wheeler (1992, p. 58) pointed out that people seek friendly, warm, and cooperative relationships with others not only for what they produce in some immediate sense, but also for what those relationships provide in time of need—that is, social support. Social support is an evaluation of where others stand about me and how their expectancies, values and standards are related. People may ask: do I believe that their goals and mine are compatible? Are we leading in the same direction? Regarding the axiological part of the assessment the questions are: Do we believe in the same things? Are my values compatible with theirs?

Social support represents assessments that are not that simple. It also includes an estimation of whether the person is willing to receive the support and collaboration from each specific significant other. For instance, it may happen that I have determined that the collaboration of a peer is important to accomplish the task, but I am in such animosity with him or her that I am not willing to receive any of his or her help, even though he or she is willing to provide it.

Furthermore, complementing the assessment of whether help and support are needed, there is an assessment of task-significant others reliability and willingness to provide support. Proclaimed support is not enough. People also decide if the
supporter is reliable. People may ask: do I believe what my boss says or promises? Covey (1994) talks about a personal account we carry with the others as a historical log of our relationships. Each positive interchange with the other adds to a higher probability we will respond positively to him or her in the future when required. Bennis (1984) found that management of trust is among the four characteristics of effective leadership: “people would much rather follow individuals they can count on, even when they disagree with their viewpoint, than people they agree with but who shift positions frequently” (p. 18).

The relationship leader-collaborator has been widely studied in organizational settings. That has not happened with the relationship among peers, which is very important in the Latin American context, not only because of new management trends favoring team-work and cooperation as a way to become more competitive, but also because the culture of the region fosters gregariousness (Díaz-Guerrero, 1982). Collectivism, as opposed to individualism, is among the preferred work values of countries like Mexico, Argentina, Brazil and Chile. Although adherence to this value has been proposed as related to underdeveloped societies, some developed or newly developed countries such as Hong Kong, Taiwan, Singapore and Japan have also shown a preference for collective over individualist work values (Hofstede, 1982). Traditional management theory has diminished the role of the collective effort inside organizations:

The United States is the major exporter of modern organization theories, but its position of extreme individualism in comparison to most other countries makes the relevance of some of its theories in other cultural environments doubtful. ... The strong feelings about the desirability of individualism in the United States make it difficult for some Americans to understand that people in less individualistic oriented societies want to resolve societal and organizational problems in ways other than the American one (Hofstede, p. 154).

Peer roles in the operation of teams has not been studied enough by management research. Seers’ (1989) study gave support to the hypothesis that the
quality of the relationships between members and their teams is as important as the quality of the leader-member relationship in determining both members’ job satisfaction and team performance. Although the leader is a formal provider of rewards and resources coming from the organization, the group is a mediator of these inputs and a provider of other social rewards like motivation and recognition. Then, any study about empowerment will benefit from incorporating into the analysis not only leader-collaborator relationships but also peer-peer relationships.

**Definition of social support:** Employees’ perceived likelihood that the people whose support is needed to accomplish the task will be really supportive.

**Organizational Support**

This assessment is presented in the next section together with resource access because both assessments are alike, differing only in the level of specificity. One refers to resource availability to perform a task and the other to resource access for the job as a whole.

**Organization-Self Assessments**

Assessments of the organization in relation to the self have also an impact on people’s overt and covert responses. According to the theory of work adjustment, the degree of perceived person-environment fit has an important role in determining satisfaction (Dawis, 1992). Comish, et al. (1994) pointed out that “both employee and employer desire a congruence of values and expectations” (p. 1) and that the degree of congruence reached determines people affective and enactive responses.

The way people behave inside organizations is also dependent on whether people perceive the organization as well administered and led, and whether there is a fit between the organizational climate and culture with personal standards and values.
Both aspects are related to trust in management, which has been proposed as a general factor predicting job satisfaction and moderating policy production and behavior (Smith, 1992).

Three organization-self assessments have been included in the model. They are presented and defined below.

**Opportunity**

People are purposeful beings (Bandura, 1986) and their existence is full of meanings and projects (Aktouf, 1992). During the process of socialization, through their relationship with social institutions, including the work place, they define with more or less clarity and consciousness their life project, personal mission, set of goals and purposes in life, and a core of values and principles. As adults inside organizations, they ponder the likelihood that organizations will satisfy their expectations, goals and needs.

In social cognitive theory, both cognitive representation of future outcomes and self-evaluation of performance against goals are sources of motivation (Bandura, 1977a). According to the theory, individuals set standards of performance against which self-reinforcing actions are conditioned. Anticipation of such self-rewarding outcomes and self-evaluative processes of actual performance are motivational (Bandura, 1977b). There is of course a reciprocal determination, and the organization in turn shapes employees' personal mission and assumed values; as research in the relationship between work and personality show, they converge as job tenure increases (Isaacson, 1985).

According to Schneider, Gunnarson, and Wheeler (1992), not only present availability but also future opportunity is a source of job satisfaction. Their definition of opportunity is “the availability of valued states and/or outcomes in the work
situation ... both ... those things that people can presently have if they choose to (present opportunities) and ... those things that people expect to have opportunity to choose some day (future opportunities)” (p. 53). According to them, people who perceive a high probability of obtaining desired outcomes in the work-place present higher levels of job satisfaction. However, opportunity has been largely unconsidered in studies of job satisfaction (Cranny, Smith & Stone, 1992).

**Definition of opportunity:** Employees’ beliefs about “the availability of valued states and/or outcomes in the work situation, ... those things that people can presently have if they choose to (present opportunities) and ... those things that people expect to have opportunity to choose some day (future opportunities)” (Schneider, Gunnarson, and Wheeler, 1992, p. 53).

**Alignment**

Alignment is an assessment of the culture and psychological climate of the organization in relation to one’s own values, standards, and beliefs. Comish, et al. (1994) have underlined the importance of matching beliefs and values between the employee and the organization in generating cooperation, commitment, and quality of work life.

Research has frequently clustered the diverse aspects of climate in four first-order factors: role (role stress and lack of harmony), job (job challenge and autonomy), leader (leadership facilitation and support), and work group (work group cooperation, friendliness and warmth). “Each factor ... furnishes information pertaining to how efficacious the work environment is perceived to be in regard to promoting or detracting from personal welfare” (James & James, 1992, p. 94). James and James’ study supported a general factor, named organizational well-being underlying the four first-order factors.
Covey (1994) and Bennis (1984) both believe that managers’ honesty, integrity, congruency, constancy and reliability generate trust among organizational members. Trust, in turn, generates people’s commitment. A related concept, credibility, has been shown to be important when providing feedback. Podsakoff and Farh (1989) showed that credibility of feedback, particularly when it is negative, encourages people to set higher goals and perform better than people who receive less credible feedback.

**Definition of alignment:** Employees’ assessment whether there is a fit between organizational and personal standards, values, and beliefs.

**Organizational Support and Resource Access**

Availability of necessary resources is a requirement to perform the task with commitment and motivation. If you perceive that there is no way you will get the materials, time, equipment or information necessary to do the task you may become discouraged and even quit. In fact, control of resources is a source of power, particularly under uncertainty (Shulka, 1982). Providing of the necessary resources, including information, is an aspect of the enfranchisement of workers (Schlesinger & Heskett, 1991).

Information and resources are sources of power (Hellriegel, Slocum, & Woodman, 1988). People in organizations that feel they have access to resources and information will tend to feel empowered (Spreitzer, 1992), whereas people that feel a shortage in the access to critical resources needed to perform their job will probably feel disempowered, limited, and impoverished inside the organization. Compared with use, availability of such resources as information contribute to empowerment (Eylon, 1995).
Definition of organizational support: Employees’ beliefs about whether they have available what they consider to be the necessary resources (material, equipment, budget, information, time, etc.) to determine, regulate and follow the set of actions or events required to accomplish the task.

Definition of resource access: Employees’ beliefs about whether they have access to what they consider to be the necessary resources (material, equipment, budget, information, time, etc.) to successfully perform their job.

Global Assessments

As the river of personal empowerment (see Figure 9) suggests, life empowerment depends on global assessments of the one’s own functioning as a whole. These assessments are in Thomas and Velthouse’s (1990) model but not in the model presented here for the sake of simplicity. However, because their importance should not be underestimated, they are presented here.

Higher level of personal empowerment takes place when cognitive changes about specific tasks generalize, first at the work-organizational level, and then at the level of the self concept and one’s own world view. As employees learn new abilities and knowledge to accomplish diverse tasks, they feel more in control. As they gain self-perception of being more efficacious in pursuing these tasks, they feel more confident. As they consider the tasks and the related goals as meaningful, they feel more purposeful. As they find a sense of authority in deciding the actions and steps in the everyday performing of the tasks and the fulfilling of the related goals, they feel more self-determined. As a consequence, employees feel more empowered.

At the most global level, social cognitive assessments manifest as disposition, more permanent cognitions (see Figure 12). Empowered people will feel more confident and at ease with themselves (Self-Confidence), and more in control
over the own behavior and its consequences (Locus of Control), but also will be more accurate in the appreciation of organizational possibilities and society restrictions imposed over him or her (Locus of Determination) and in the appreciation of interdependence and collective effort (Allocentrism). In addition, the individual develops a clearer picture of what he or she looks for in life (Purposefulness), always under a certain degree of positiveness- negativeness in their outlook of life and the world (Optimism). As depicted in Figure 7, four of these global assessments were addressed by Thomas and Velthouse’s (1990) global assessments: global impact (Locus of Control), global choice (Locus of Determination), global competence (Self-Confidence), and global meaningfulness (Purposefulness).

Self-competence is a sense of global confidence coming from a generalized perception of self-efficacy across tasks and along time. It is similar to what Eden (1988) calls trait expectancy. Self-competence is related to self-esteem, except that the later involves also an affective weight of adequacy and self-acceptance (Gist,

![Figure 12. Social, cognitive and affective factors of empowerment with global assessments included](image-url)

Kohn & Schooler (1983) define self-confidence as “the positive component of self-esteem: the degree to which men [sic] are confident of their own capacities” (p. 20), and complement it with the self-critical half of self-esteem: self-deprecation. Probably, self-competence and self-esteem are not differentiated in practice, both representing a sense of personal worth. Self-competence is similar to what Gist (1987) calls perceived competency; which “could be defined as generalized self-efficacy, the conviction that one can successfully carry out a range of actions” (p 479). There is evidence that specific self-efficacy generalizes to other activities different from those providing information (Eden & Aviram, 1993). Self-esteem has been found to be a moderator in the relationship between job performance and satisfaction, the relationship being lower for low self-esteem people (Marcic, 1989).

Thomas and Velthouse (1990, p. 674) defined purposefulness as a “general level of caring or commitment.” Covey (1994) has pointed out the importance of people having clear purposes to be successful in organizations and in life. In the field of learning organizations, Senge (1990), after proposing that personal mastery is one of the disciplines to cultivate in today organizations, said that people with high proficiency in such dimension have a clear understanding of the purpose underlying their visions and goals.

Sue (1978) addressed the concept of world views when talking about the processes of empowerment and impoverishing of minorities in the US, and included
the constructs of locus of control and locus of responsibility, which resembles locus of determination. Sue (p. 419) defined world views as “how a person perceives his or her relationship to the world (nature, institutions, other people, things, etc.)” Locus of control refers to the belief of whether or not my behavior determines the desired responses from the environment (Sue, 1978); that is, “generalized expectancies that outcomes are determined either by one’s actions or by external forces beyond one’s control” (Bandura, 1986, p. 413). Whereas, locus of determination is an assessment of the degree of action, control or self-determination the organization or the external system allows me as an individual.

Locus of determination is an assessment of the responsiveness of the social system to my person because of the availability of adequate resources for my purposes. According to Schneider, Gunnarson and Wheeler (1992), demographic characteristics such as race, sex, and age are not consistently related to job satisfaction because the relevant variable is availability of opportunities, which, varies from individual to individual because of his or her demographic characteristics. Says Bandura (1986, 413):

More often, however, a social system is unresponsive because it is negatively biased against certain classes of people but rewards the competence of other members. Institutional bias either bars access to, or imposes a higher competence requirement for, the attainment of valued outcomes. These different meanings of responsiveness are illustrated in the changing social practices of administrative organizations.

Sue (1978) exemplifies the orthogonal condition of both constructs, locus of control and locus of determination, by explaining the diverse world views of US minorities and mainstream citizens. The most psychologically healthy minority members have an internal locus of control, acknowledging that their behavior is important to accomplish the desired outcomes, but also have an external locus of determination, recognizing the constraints the system poses to them.
According to Covey (1994), the essence of proactive behavior is in the interaction of these two factors. Proactive attitudes stem from employees recognizing the restrictions and limitations that the system posses over them, but acknowledging that they can respond to such an environment, which does not completely condition them. Healthy U.S. minority activists acknowledge the obstacles imposed from society but rely on their behavior to surpass them (Sue, 1978).

People who are optimistic and have a positive outlook in life are not only physically but also psychologically more healthy. People who have a positive attitude are more satisfied with their job, either because these kind of people are more satisfied in general or because they make decisions regarding jobs that are conducive to higher satisfaction (Schneider, et al., 1992). Job satisfaction correlated .40 with a measure of general positive disposition obtained more than forty years before (Staw, Bell, & Clausen, 1986; Staw & Ross, 1985). According to Cranny, et al. (1992), a dispositional favorable reaction could account for the recurrent inter-correlation among the diverse aspects of job satisfaction.

National cultures influence the individual-collective orientation of employees (Hofstede, 1982). Allocentric employees tend to be low in alienation and high in social support; whereas, idiocentric tend to be high in achievement and loneliness (Triandis, 1989). Team work and synergy have been frequently underlined as elements of new paradigms of management.

Behavior, Organization and Empowering Interventions

The contents of the cognitive and affective assessments determine the quality of the responses of the individual to the organization, which manifest as both covert and overt behaviors. Covert manifestations are motivation and satisfaction and overt
behavior manifests as actual initiation of the relevant behavior to accomplish the task, degree of effort exerted and persistence in facing obstacles.

Behavior represents information to the individual, but it of course, impinges in the organization. More positive levels of individual behavior are expected to improve the organizational performance. Organizational change starts by an empowering intervention. It is usually generated by management, but employees react and shape it either explicitly or implicitly. The circle continues going on and on in a reciprocal determining relationship between the organization and the individuals. Personal and organizational empowerment are not in an end road, but in an ongoing process. They result not from short term interventions but from long term organizational commitment. Empowering interventions in Mexican organizations may take from 5 to 10 or more years to get sizable results (personal communication, R. González, Manager of Quality, General Motors - Toluca, March 16, 1995). Among the relevant organizational factors that need to be considered to foster empowerment are: team work, decision making style, goal setting, feedback system, modeling, reward system, job design, leadership style, organizational structure, organizational culture, communication system, interpersonal relationships and training.

The kind of involvement and commitment organizations needs today from their members is very intense, and the nature of the organizational changes necessary to do it is also very intense, dramatic (Aktouf, 1992), and even revolutionary. Simple isolated programs that do not change the organizational philosophy, the nature of the relationship employee-organization, the use of power, and the concept of work and worker are not going to bring the expected results. It is not surprising that studies in isolated programs in worker participation in decision making frequently present not positive results in productivity (Locke & Schweiger, 1979; Wagner & Gooding, 1987).
For instance, quality circles in the West, where they have frequently been introduced as an instrument without any major organizational change. Barrick and Alexander's (1987) review of literature showed that only about half of quality circle studies in the US reported positive results and about one fourth had negative results. Most of the research about the effectiveness of quality circles has been done in organizations where an isolated program of these circles was implemented without any attempt to change the organization and its culture to become participative. Lawler III and Mohrman (1985) have argued that most quality circles reach a decline point under such conditions. They propose that if some form of worker input and problem analysis are desired but there is not any intention to change the organization to a participative one, traditional quality circles should not be used. They proposed to use instead variations of quality circles adopting the form of worker task forces, with a problem to solve and a deadline to doing it.

Lack of meaning is in the center of workers' low motivation inside traditional organizations. Workers' alienation needs to be combated by restoring the sense of meaning to the every day working life, what is not possible without facing the problem of estrangement: workers have been separated from the functioning of the organization and deprived from their right to decide about their activity and role in the work process (Aktouf, 1992). That is, powerful empowering interventions are those working directly with all the task-self dimensions: self-efficacy, meaningfulness, choice and impact.

The empowering of traditional organizations is a process of learning. Individuals inside them are in the process of learning new attitudes, new knowledge, new ways to relate to others, how to be more responsible, and the like. That includes workers and employees, but also managers and supervisors, who need to learn new ways to lead and to reach synergy. The whole organization needs to learn and
transform itself (Senge, 1990). A person will result either more empowered or more impoverished as the Task assessments of the cognitive-affective dimension improve, and as they generalize to the life-global levels.

For instance, increasing employees’ self-efficacy perceptions regarding diverse aspects of the job is empowering. There is evidence that in the antecedents of performance these perceptions are more important than actual ability (Wheeler, 1983). It is not surprising that low self-efficacy perceptions coming from the socialization process mainly through verbal persuasion and not coming from enactive experience of own actual abilities seem to explain the low representation of women in several male-dominated professions (Betz & Hackett, 1981; Hackett & Betz, 1981).

Social, cognitive and affective assessments are related to the behaviors and attitudes exerted by people inside organizations. Outcomes are manifest as both covert and overt behaviors. Covert manifestations are varied degrees of such affective reactions as mood, motivation, involvement, commitment, satisfaction, and intentions to perform. Overt behavior is expressed by initiation of the relevant behavior, effort exerted, and persistence in facing obstacles, all of them leading to performance attainments (Bandura, 1986).

As with social, cognitive and affective assessments, employee outcomes can be also focused at diverse levels of specificity (Lent & Hackett, 1987). Two levels are the interest to the study: task outcomes and job outcomes. Task outcomes refers to the degree in which employees feel energized, motivated, and committed, and show initiative, effort, and resiliency in relation to specific tasks, whereas job outcomes refers to the degree in which employees feel satisfied and committed and show initiative, energy and persistence in relation to the own job and organization. Task outcomes included were mood, task involvement, and task performance. Job outcomes were job satisfaction, organizational commitment, extra-role behaviors, and
withdrawal/remain intentions. These are not exhaustive behavioral manifestations but only some of the most frequently addressed by research. Each of these outcomes is explained below.

**Task Involvement**

Involvement has been defined as “the degree of daily absorption an individual experiences in work activity” (Morrow & McElroy, 1986, p. 139). The definition is similar to that of commitment, which is considered as a “psychological bond (identification, involvement, desire) with the referent” (Kaldenberg, Becker, and Zvonkovic, 1995, p. 1361), where the referent changes according to the focus of distinct studies; for instance, job commitment, professional commitment, or organizational commitment. Involvement and commitment have at least two components: one affective and the other enactive (Glisson & Durick, 1988).

**Definition of task involvement:** Employees' affective responses and behavioral attitudes of identification with a task.

**Mood**

James and James (1992) have pointed out that “affect is both a cause and an effect of perceptions of special salience to individuals” (p. 90). They found that cognitive assessments of job attributes were bidirectionally related to affective outcomes and feelings of well-being. Affective responses as consequences of self-referent though in the work place have also been studied by Allinger and Williams (1993). They found that progress toward a goal and changes in perceptions of efficacy in relation to tasks were concomitant with changes in task enjoyment and mood. The higher the goal progress and the self-efficacy perceptions, the higher positive affect, and the lower negative affect.
Definition: employees' emotional tone associated with a job task or activity.

**Task Performance**

Following Bandura's (1977a, 1986) theory in self-efficacy, Thomas and Velthouse (1990) proposed that social, cognitive and affective assessments of the self in relation to a task have an impact in any behavior related to such a task. Based in their suggestions, four behavioral dimensions are included here: degree of effort exerted by the individual in performing the task (effort), amount of initiative showed as new challenges are presented (initiative), degree of persistence of the person when facing obstacles (resilience), and degree of accomplishment of the goal of the task (achievement).

**Definition of task performance:** Employees' degree of initiative, effort, resiliency and achievement in performing the task.

**Organizational Commitment**

Penley and Gould (1988) identified two aspects of commitment in the literature: one instrumental and the other affective. Instrumental or calculative commitment refers to the exchange value of the individual-organization relationship as perceived by the employee. Penley and Gould broke down affective commitment in two dimensions: moral and alienative. Moral commitment is related to the acceptance and identification with organizational goals, whereas alienative commitment comes from a perceived lack of alternatives to commitment.

**Definition of organizational commitment:** Employees' strength of their “belief in the organizational goals ... [of their] willingness to exert considerable effort on behalf of the organization, and ... [of their] desire to remain member of the organization” (Glisson & Durick, 1988, p. 64).
Job Satisfaction

Job satisfaction has been profusely studied in the field of organizational behavior. Although there is not a clear cut relationship between job satisfaction and performance, maybe because general variables do not predict very well specific responses, it has been related to absenteeism, turnover and health (Hellriegel, Slocum & Woodman, 1989). It is also believed that job satisfaction is a necessity if employees have to be “adaptable, cooperative, and willing to accept change” (Smith, 1992, p. 6).

Definition of job satisfaction: “A pleasurable or positive emotional state resulting from the appraisal of one’s job or job experiences (Locke, 1976, p. 1300).

Extra-role Behaviors

Extra-role or non-task behaviors are those behaviors that are not commonly considered as requirements of the task or of the job description but that have either positive or negative consequences to the organization (Fisher & Locke, 1992). Extra-role behaviors have been addressed by the literature in two facets, representing the positive and negative extremes of organizational consequences: citizenship behaviors and withdrawal behaviors. Citizenship behaviors are also called prosocial, altruistic, extrarole, and helping, whereas withdrawal behaviors are named noncompliant, negative, or avoidance.

Morrison (1994) pointed out that there is not a clear cut distinction between in-role and extra-role behaviors and that the distinction changes from person to person, depending on their conceptualization of their role. This, however, should not be a problem in this study because that distinction is not really important. What matters for the purposes of the study is the existence of behaviors that have either positive or negative consequences to the organization.
According to Roznowski and Hulin (1992), extra-role behaviors are adaptive responses to job-related affects. They occur because people change and adapt their behavioral repertoires both to fit the contingencies and constraints in the particular organizational situation and to provide themselves with the maximum possible satisfying outcomes or the fewest dissatisfying outcomes (p. 129).

**Definition of extra-role behaviors:** Employees’ degree of manifestation of non-task behaviors that have an impact in the organization.

**Remain/withdrawal Intention**

Withdrawal has been related to negative affect and to cognitions of low control (Parker, 1993). According to Roznowski and Hulin (1992), measures of behavioral intentions are very good in predicting the corresponding behavior. This was confirmed in the case of turnover intention by Tett and Meyer’s (1993) study.

Roznowski and Hulin (1992) suggested to avoid using simple dichotomous variables such as turnover intention because of the statistical problems of setting ceilings to the size of the correlation coefficients and the difficulty to interpret them. Instead of using discrete behaviors, they suggested using behavioral families such as withdrawal. In fact, Tett and Meyer (1993) compared the use of turnover intention versus withdrawal cognitions by diverse studies finding stronger correlations with diverse affective measures for withdrawal cognitions than for turnover intention.

**Definition of remain/withdrawal intention:** To what degree employees’ are considering not leaving the organization, the job area or department.

**Hypotheses**

Diverse hypotheses were proposed that capture the assumptions made from the social, cognitive and affective model of empowerment. This study was primarily
aimed at studying the relationship between factors of empowerment and employees' outcomes (see Figure 5). Hypotheses 1 to 6 are about diverse relationships between those elements. Additionally, Hypotheses 7 to 10 are about the relationship of empowering interventions with the other two elements of the model: factors of empowerment and outcomes.

**Hypotheses for Task Assessments**

According to Thomas and Velthouse (1990), the four task self-assessments (task self-efficacy, task meaningfulness, task choice, and task impact) are determinants of employees’ task outcomes (task involvement, performance, and mood). Hypothesis 1 is after that.

**Hypothesis 1**: Employees' task outcomes are predicted by employees’ task-self assessments.

The social, cognitive and affective model of empowerment used in this study proposes that context-self assessments (Others’ competence, social support, and organizational support) are also predictors of task outcomes. Hypothesis 2 is after such relationship.

**Hypothesis 2**: In the prediction of employees’ task outcomes, employees’ context-self assessments accounts for additional variance to the variance accounted by task-self assessments.

**Hypotheses for Job Assessments**

The social, cognitive and affective model of empowerment proposes that factors of empowerment predicts outcomes at the job level. First, it was hypothesized that job-self assessments (Job Self-Efficacy, Job Meaningfulness, Job Choice, Job Impact) predicts job outcomes (Job Self-Efficacy, Job Meaningfulness, Job Choice,
and Job Impact), as Thomas and Velthouse (1990) proposed. Then, it was hypothesized that organizational-self assessments (opportunity, alignment and resource access) are also predictors of job outcomes.

**Hypothesis 3:** Employees’ job outcomes are predicted by employees’ job-self assessments.

**Hypothesis 4:** In the prediction of employees’ job outcomes, employees’ organization-self assessments accounts for additional variance to the variance accounted by job-self assessments.

**Hypotheses for the Comparison of Assessment Specificity Level in the Prediction of Outcomes**

These pair of hypotheses refer to the comparative value of Task assessments versus Job assessments in the prediction of outcomes. They assume that the prediction of outcomes is better done by assessments at the corresponding level of specificity than by those at non corresponding. First hypothesis below is for the prediction of task outcomes and the other for the prediction of job outcomes.

**Hypothesis 5:** Employees’ task outcomes are better predicted by employees’ Task assessments than by Job assessments.

**Hypothesis 6:** Employees’ Job assessments are better predicted by employees’ Job assessments than by Task assessments.

**Hypotheses for Organizational Empowering Interventions**

First, considering the mediating role of factors of empowerment in the relationship between empowering interventions and outcomes, factor of empowerment are compared with empowering interventions as predictors of
outcomes. Then, effects of empowering interventions on factors of empowerment and outcomes are hypothesized.

**Hypothesis 7:** Social, cognitive and affective factors of empowerment are better predictors of outcomes than empowering interventions.

**Hypothesis 8:** Employees in organizations implementing empowering interventions compared with employees in organizations non implementing empowering interventions present higher levels of task assessments.

**Hypothesis 9:** Employees in organizations implementing empowering interventions compared with employees in organizations non implementing empowering interventions present higher levels of job assessments.
Chapter 4:
Method

Procedure

A questionnaire designed to observe employees at several Mexican organizations was developed for this study. A contact person was established for each of fourteen organizations that agreed to participate in the study. The contact person was given a set of questionnaires to distribute among employees with a college degree. Organizations participating were offered aggregated anonymous information about how their employees compared as a whole with the sample. Confidentiality was granted to subjects. They were offered information about how they compared with people in the rest of the study, on request. Considering that 240 questionnaires were delivered and 198 returned, the response rate was 82.5%.

A second set of questionnaires was given to 80 full time employees enrolled in a MBA program at a Campus of a national university located in central Mexico. Master students were asked to participate and questionnaires were handed out for response someplace else. Students were asked to return the questionnaires to the MBA office before two weeks. Students were also offered information about how they compared with people in the rest of the study, after request. Considering that 40 questionnaires were turned in, the response rate was 50%.

Sample

Respondents were 238 full time employees of diverse organizations located in central Mexico that were in both the service and the productive sectors. The mean age of subjects in the sample was 33, with most of them between 25 and 35 years old.
and having a range from 19 to 61 (see Table 2). About fifty percent (117) of the subjects requested information about how they did in the questionnaire. The degree of difficulty of the questions required the application of the questionnaire to employees with college education. As Table 3 depicts, 94% of sample are college graduated and 21% hold also a masters degree.

Regarding characteristics of subjects’ organizations, sixty-six percent were in manufacturing --most of them in food and beverages manufacturing-- and the remaining were in the service sector --most of them in education (see Table 4). The size of the organization (location site or plant) was more than 500 employees for about half of subjects (see Table 5) and the origin of the organizations’ capital was foreign for 23 % and national for 58 % of organizations (see Table 6).

### Table 2.
Number and percentage of employees in the sample by age groups.

<table>
<thead>
<tr>
<th>Age</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-24</td>
<td>21</td>
<td>8.8</td>
</tr>
<tr>
<td>25-29</td>
<td>82</td>
<td>34.5</td>
</tr>
<tr>
<td>30-34</td>
<td>51</td>
<td>21.4</td>
</tr>
<tr>
<td>35-39</td>
<td>31</td>
<td>13.0</td>
</tr>
<tr>
<td>40-44</td>
<td>23</td>
<td>9.7</td>
</tr>
<tr>
<td>45-49</td>
<td>17</td>
<td>7.1</td>
</tr>
<tr>
<td>49---</td>
<td>9</td>
<td>3.8</td>
</tr>
<tr>
<td>Missing</td>
<td>4</td>
<td>1.7</td>
</tr>
</tbody>
</table>

### Table 3.
Number and percentage of employees in the sample by study level.

<table>
<thead>
<tr>
<th>Study level</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doctor Graduated</td>
<td>3</td>
<td>1.3</td>
</tr>
<tr>
<td>Master Graduated</td>
<td>50</td>
<td>21.0</td>
</tr>
<tr>
<td>Undergraduate</td>
<td>170</td>
<td>71.4</td>
</tr>
<tr>
<td>Technical</td>
<td>5</td>
<td>2.1</td>
</tr>
<tr>
<td>High School Diploma</td>
<td>7</td>
<td>2.9</td>
</tr>
<tr>
<td>Missing values</td>
<td>3</td>
<td>1.3</td>
</tr>
</tbody>
</table>
Table 4.
Number and percentage of employees in the sample by sector of organizations.

<table>
<thead>
<tr>
<th>Sector</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Food/beverages</td>
<td>67</td>
<td>28.2</td>
</tr>
<tr>
<td>Pharmaceutical</td>
<td>33</td>
<td>13.9</td>
</tr>
<tr>
<td>Automotive</td>
<td>27</td>
<td>11.3</td>
</tr>
<tr>
<td>Metal</td>
<td>22</td>
<td>9.2</td>
</tr>
<tr>
<td>Other</td>
<td>8</td>
<td>3.4</td>
</tr>
<tr>
<td>Total</td>
<td>157</td>
<td>66.0</td>
</tr>
<tr>
<td>Services</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Educational</td>
<td>31</td>
<td>13.0</td>
</tr>
<tr>
<td>Government</td>
<td>21</td>
<td>8.8</td>
</tr>
<tr>
<td>Restaurant and merchandising</td>
<td>14</td>
<td>5.9</td>
</tr>
<tr>
<td>Financial/banking</td>
<td>7</td>
<td>2.9</td>
</tr>
<tr>
<td>Other</td>
<td>8</td>
<td>3.4</td>
</tr>
<tr>
<td>Total</td>
<td>81</td>
<td>34.0</td>
</tr>
</tbody>
</table>

Table 5.
Number and percentage of employees in the sample by total of employees at location.

<table>
<thead>
<tr>
<th>Employees</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - 29</td>
<td>15</td>
<td>6.3</td>
</tr>
<tr>
<td>30 - 99</td>
<td>19</td>
<td>8.0</td>
</tr>
<tr>
<td>100 - 200</td>
<td>29</td>
<td>12.2</td>
</tr>
<tr>
<td>200 - 500</td>
<td>59</td>
<td>24.8</td>
</tr>
<tr>
<td>500 - +</td>
<td>115</td>
<td>48.3</td>
</tr>
<tr>
<td>Missing</td>
<td>9</td>
<td>0.4</td>
</tr>
</tbody>
</table>

Table 6.
Number and percentage of employees in the sample by organization's origin of capital.

<table>
<thead>
<tr>
<th>Origin</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>National</td>
<td>139</td>
<td>58.4</td>
</tr>
<tr>
<td>Mixed</td>
<td>42</td>
<td>17.6</td>
</tr>
<tr>
<td>Foreign</td>
<td>55</td>
<td>23.1</td>
</tr>
<tr>
<td>Missing</td>
<td>9</td>
<td>0.9</td>
</tr>
</tbody>
</table>
Measures

An instrument of working life (Cuestionario de Vida Laboral) was developed in Spanish (see Appendix 1, and Appendix 2 for an English translation). A pilot study of a first version of the questionnaire was done with ten employees. After responding, each of them was interviewed looking for problems of interpretation. Using that information, the definitive version of the questionnaire was produced. Considering that all of the questionnaires were applied in Spanish, a procedure to assure language equivalency such as back-translation (Brislin, 1970) was not necessary. Language equivalency is only required when questionnaires are applied in two languages for different sections of the sample. The questionnaire requested the following general information: year of birth, highest degree obtained, industrial sector of organization, origin of the organization’s capital, all number of employees at plant or location.

Measures of Task Assessments

Employees responding to the questionnaire were in diverse jobs performing all sort of tasks. However, as the name of the construct suggests, it was necessary to identify a particular task for each employee for he or she would manifest his or her task-self assessments for that particular task. The study focused on the most important task done by employees at their job, as acknowledged by them. Thus, in order to answer items in task assessments subjects were asked to identify which task or activity was regarded by them as the most important one in their job. To do that, this section of the questionnaire includes two short-answer questions to use as references (or seeds) for subjects to use later in responding about their assessments of task self-efficacy, task meaningfulness, task choice, task impact, others’ competence, others’ support, and resource availability.
The first reference question asks subjects to write down the most important task or activity performed in the job. The second reference question asks to identify the goal or purpose of that task, which is important for measuring task meaningfulness and task impact. The reference questions are presented below in Spanish, followed by a translation.

- Considerando todo el conjunto de actividades o tareas que realiza Usted en su trabajo, ¿Cuál de esas actividades o tareas es la más importante? (Taking into account the whole set of activities and tasks you do in your job, which task or activity is the most important?)

- ¿Cuál considera Usted que es el propósito u objetivo de dicha actividad? (Which is in your opinion the purpose or goal of this activity?)

Task Self-Efficacy

Bandura (1977a, 1986) proposed that diverse dimensions of self-efficacy can be measured: magnitude (or level), strength, and generality. Magnitude is the level of the highest tasks an individual feels capable of performing when tasks are ordered according to increasing difficulty. Strength is the degree of people's efficacy expectancy regarding a specific task measured from weak to strong. Because generality is the range of extension of self-efficacy expectations across several situations or other activities, this dimension is more relevant to job self-efficacy than to task self-efficacy.

Although self-efficacy can be measured by diverse dimensions, measuring magnitude requires an ordered array of tasks with an increasingly degree of difficulty, which either would increase the complexity of a study already having a large number of variables or would limit the study to investigate only a single type of job (i.e., teacher, secretary, or dentist), after determining in advance the specific tasks involved in that job. Furthermore, magnitude and strength have been repeatedly reported as highly correlated (i.e., Lee & Bobko, 1994). Hence, for the sake of parsimony, only the strength dimension was measured in the study. Generality is an aspect relevant to
job self-efficacy because this assessment is in a way a generalization of self-efficacy across diverse tasks; as a consequence, this dimension is not measured for task self-efficacy.

Questionnaires in self-efficacy have been reported as having adequate internal consistency and test-retest reliability (Moe & Zeiss, 1982; Gist & Mitchell, 1992). For instance, Gist, Schwoerer, and Rosen (1989) reported alpha coefficients of .92 and .98, and Lent, Brown and Larkin (1986) reported a test-retest correlation of .84 for a questionnaire in self-efficacy regarding job duties of occupations. Also, although self-efficacy has been measured by diverse forms, all of them are highly correlated (Lee & Bobko, 1994).

The validity of self-efficacy measures has been supported by numerous studies. For instance, the convergent validity of self-efficacy measures was determined against self-set goals, positive affect, and past and present performance in a study by Lee and Bobko (1994).

For this study, three items in self-efficacy were translated to Spanish from Spreitzer (1992, p. 179, $\alpha = 0.81$), and Fulford and Enz (1995, p. 167, $\alpha = 0.70$). The items were also customized to be specific about tasks. All of the items refer to the task or activity that the respondent already recognized, after answering the reference questions, as the most important one in his or her job. Items are presented below.

- Mis habilidades, capacidades y características personales son las necesarias para realizar esta actividad (This activity is well within my scope of my abilities, capabilities and personal characteristics)
- Me siento seguro acerca de mis habilidades para realizar esta actividad (I am confident about my ability to do this activity)
- He logrado ser un experto en las habilidades necesarias para realizar esta actividad. (I have mastered the skills to successfully do this activity)
Four extra items were also designed. Two were worded in the way that items are frequently written by social cognitive researchers when tasks are ordered by degree of challenge (see for instance, Mitchell, et al., 1994). The other items are reverse-scored (note: bullets in the form of “⊕” represent reverse scored items and in the form of “⊙” represent normal scored items). Remaining items in self-efficacy are as follows:

⊕ Estoy seguro de que puedo enfrentar con éxito los retos más difíciles que me impone esta actividad
(I am confident of being successful in facing the highest challenges of this activity)

⊕ Me siento seguro de realizar con éxito esta actividad
(I feel confident about being successful doing this activity)

⊕ Frecuentemente dudo de mi capacidad o preparación para realizar esta actividad
(I frequently have doubts about my capabilities or preparation to do this activity)

⊕ Debo mejorar mucho más en las habilidades, capacidades y características necesarias para realizar con éxito esta tarea o actividad
(I have to improve a lot in the skills, capabilities and characteristics that are needed to successfully do this activity)

The response format for items on self-efficacy and the remaining task assessments is explained below in the section “description of the questionnaire in social, cognitive and affective assessments”.

**Task Meaningfulness**

Fulford and Enz (1995) used three items to measure job meaningfulness (they called the variable just meaningfulness but their definition corresponds to what in this study is named job meaningfulness). Those items were translated and then adapted to measure task meaningfulness. Two extra items were designed to estimate subjects’ assessment of the importance of the goal or purpose of the task. One of these items was designed to be reverse scored. The response scale is similar to that for self-efficacy.

⊕ Esta actividad es significativa para mí
(This activity is meaningful to me)
El propósito de esta actividad —escrito arriba— vale mucho la pena para mí 
(The purpose of this activity, written above, is highly worthwhile to me)

El luchar por este propósito le da sentido a mi vida
(Fighting for this purpose provides meaning to my life)

Realmente no me importa mucho que consecuencias tiene o no esta actividad
(I really don’t care about which consequences this activity does or does not have)

Me pesa mucho cuando no se cumple el propósito de esta actividad
(I feel very sorry when the purpose of this activity is not fulfilled)

Task Choice

Four items were translated from Fulford and Enz (1995, p. 167, $\alpha = 0.82$),
and from Spreitzer (1992, p. 179, $\alpha = 0.83$). The items were adapted to be at the task level, as it was done with items of previous variables. The fourth item was reverse recoded and a fifth item was additionally designed, also in a reverse code.

Tengo la autonomía necesaria para realizar esta actividad
(I have the necessary autonomy to do this activity)

Cuento con autoridad para tomar decisiones por mí mismo al realizar esta actividad
(I have the authority to decide on my own when doing this activity)

Tengo la independencia y libertad necesarias al realizar esta actividad
(I have the necessary independence and freedom to do this activity)

No se me permite tener la iniciativa que necesito al hacer esta actividad
(I am not allowed to use the personal initiative I need in carrying out this activity)

El grado de autoridad que tengo para realizar esta actividad no es el adecuado
(The level of authority I have when doing this activity is not appropriate)

Task Impact

Two items for impact were adapted and translated from Spreitzer (1992, p. 179, $\alpha = 0.88$) and other three were especially designed. As in the case of task choice, the translated items were adapted to reflect the specificity of tasks.
Quisiera que lo que yo hago tuviese una mayor repercusión en el logro del objetivo o propósito de esta actividad (I wish my behavior had a higher impact in fulfilling the purpose or objective of this activity)

Lo que yo hago tiene impacto significativo en el logro del objetivo o propósito de esta actividad (What I do has a significant impact over the accomplishment of the goal or purpose of this activity)

Hay muchos factores fuera de mi control que afectan el logro del objetivo o propósito de esta actividad (There are many factors out of my control that affect the accomplishment of the goal or purpose of this activity)

Si no se hiciera lo que yo hago, o algo similar, sería muy difícil lograr el objetivo o propósito de esta actividad (It would be very difficult to accomplish the goal or objective of this activity if there is not an intervention like mine or a similar one)

Tengo buen control sobre el logro del objetivo o propósito de esta actividad (I have a good degree of control over the accomplishment of the goal or purpose of this activity)

Others’ Competence

The item below measures others’ competence in general.

Las personas cuya colaboración se requiere para que yo realice esta tarea o actividad son capaces para hacer su parte de la tarea (The people whose collaboration is required for me to accomplish this task or activity are capable enough to do their part of the task)

Although this item captures the global perceptions of the subject regarding the competence and support of the others in general, it does not capture the differences in perception of competence among the distinct task-significant people. This may be important when the range of competencies among people is broad. Perceived competence of the following groups of people in the job is measured: boss and other superiors, collaborators or other subordinates, coworkers and colleagues and internal and external customers. The following items measure perceived competence. The last three items are reverse scored.

Mi jefe y otra gente arriba de mí son lo suficientemente competentes para hacer lo que tienen que hacer a fin de que yo realice con éxito esta tarea o actividad (My boss and other people above my level are competent enough to do what they have to do for me to successfully accomplish this task or activity).
Mis subordinados y demás gente abajo de mí son lo suficientemente competentes para hacer lo que tienen que hacer a fin de que yo realice con éxito esta tarea o actividad (My subordinates and other people below my level are competent enough to do what they have to do for me to successfully accomplish this task or activity).

Mis colegas y demás gente a mi mismo nivel de autoridad son lo suficientemente competentes para hacer lo que tienen que hacer a fin de que yo realice con éxito esta tarea o actividad (My colleagues and other people at the same level I am are competent enough to do what they have to do for me to successfully accomplish this task or activity).

Mis clientes u otra gente a la que apoyo, sirvo o atiendo son lo suficientemente competentes para hacer lo que tienen que hacer a fin de que yo realice con éxito esta tarea o actividad (My customers or other people I help or attend are competent enough to do what they have to do for me to successfully accomplish this task or activity).

Las incapacidades de mi jefe o de otras personas arriba de mí están afectando negativamente mi rendimiento en esta tarea o actividad (The shortcomings of my boss or of other people above my level are currently having a negative effect in my performance of this task or activity).

Las incapacidades de colegas u otra gente a mi nivel están afectando negativamente mi rendimiento en esta tarea o actividad (The shortcomings of my colleagues or of other people at my same level are currently having a negative effect in my performance of this task or activity).

Las incapacidades de mis subordinados u otra gente bajo mi autoridad o a niveles más bajos que el mío están afectando negativamente mi rendimiento en esta tarea o actividad (The shortcomings of my subordinates or other people below my level are currently having a negative effect in my performance of this task or activity).

Social Support

Five items have been designed to measure support. One item is reverse scored.

Es difícil encontrar en mi trabajo una persona que me apoye y con quien pueda hablar acerca de la realización de esta tarea o actividad (It is difficult to find in my work a supportive person to talk to about this task or activity)

Mi jefe me da el apoyo personal y emocional que yo necesito para la realización de esta tarea o actividad (My boss provides the personal and emotional support I need to accomplish this task or activity).

Mis subordinados me dan el apoyo personal y emocional que yo necesito para la realización de esta tarea o actividad (My subordinates provide the personal and emotional support I need to accomplish this task or activity).
Organizational Support

The first four items below were adapted from Spreitzer (1992), and the last two were designed for this study.

- Mis colegas u otra gente a mi mismo nivel me dan el apoyo personal y emocional que yo necesito para la realización de esta tarea o actividad (My colleagues and other people at my level provide the personal and emotional support I need to accomplish this task or activity).

- Mis clientes u otra gente a las que apoyo, sirvo o atiendo me dan el apoyo personal y emocional que yo necesito para la realización de esta tarea o actividad (My customers or other people I help or attend provide the personal and emotional support I need to accomplish this task or activity).

Measures of Job Assessments

Generalized job assessments required that subjects in the study think in their job as a whole. A short-answer item is at the beginning of this section to induce such a mind set in the respondents, although the response was not analyzed in the study. This item follows.

- Por favor describa brevemente en qué consiste su trabajo actual (Please give a brief description of your present job)
After answering this "seed" question, respondents were asked to answer items for generalized job assessments by the following instruction:

- Considerando su trabajo como un todo, por favor indique que tanto se aplican en su caso las siguientes afirmaciones (Considering your job as a whole, please mark how much the following statements apply in your case)

Job-Self Assessments

Job Self-Efficacy

Three items have been adapted and translated from Spreitzer (1992, p. 179, $\alpha = 0.81$), and Fulford and Enz (1995, p. 167, $\alpha = 0.70$). Two extra items were designed. One of them is reverse scored.

☐ Poseo las habilidades necesarias para mi trabajo actual
   (My job is well within my scope of my abilities)

☐ Tengo confianza en mi capacidad para hacer mi trabajo actual
   (I am confident about my capabilities to do my job)

☐ He alcanzado un dominio total de las habilidades requeridas para hacer mi trabajo actual
   (I have mastered the skills to do my job)

☐ Tengo todo lo que necesito para tener mucho éxito en mi trabajo actual
   (I have what it takes to be very successful in my present job)

☐ Me falta mucha más preparación para tener éxito en mi trabajo actual
   (I need much more training to be successful in my present job)

Job Meaningfulness

To measure job meaningfulness, three items were adapted and translated (Fulford & Enz, 1995, p. 167, $\alpha = 0.70$; Spreitzer, 1992, p. 179, $\alpha = 0.81$). Two extra items were designed to be reverse scored.

☐ Mi trabajo actual es importante para mi (My work is important to me.)
   Note: Work and job both translate as “trabajo” in Spanish, eliminating any subtle differences.

☐ Mi trabajo es muy significativo para mí (My job is meaningful to me)

☐ Me importa lo que hago en mi trabajo (I care about what I do on my job)
Preferiría tener un trabajo que valiera más la pena (I’d rather have a job that is more worthwhile)

De mi trabajo actual no obtengo nada que realmente valga la pena
(My present job doesn’t give me anything of value)

Job Choice

Four items were adapted from Spreitzer (1992, p. 179, $\alpha = 0.82$), and an extra one was adapted from Dawis (1992). Last two items are reverse scored.

Tengo la autonomía para determinar qué hacer en mi trabajo
(I have significant autonomy to determine how I do my job)

El decidir lo que hago en mi trabajo depende de mí
(I can decide on my own how to go about doing my work)

Es adecuado el grado de independencia y libertad que tengo para decidir cómo hago mi trabajo
(The degree of independence and freedom I have to decide how to do my job is adequate)

Tengo pocas oportunidades para usar mi iniciativa personal al realizar mi trabajo
(I have little chance to use personal initiative in carrying out my job)

No tengo la suficiente libertad para probar nuevas ideas en mi trabajo
(I have not freedom to carry out new ideas in my job)

Job Impact

Items for influence were designed considering items by Spreitzer (1992, p. 179, $\alpha = 0.88$).

Cuando preveo, deseo o busco que algo cambie en mi trabajo o en la empresa o institución en la que presto mis servicios: (When I envision or wish something to change in my job or organization:)

mi opinión es tomada en cuenta (my opinion counts)

tengo una gran influencia en lo que pasa (my impact in what happens is large)

no hay manera de que se me tome en cuenta (there is no way I am taken into account)

puedo influir en el cambio (I have the means to influence the change)

mis deseos u opiniones no tienen el menor impacto en lo que se decida (my wishes or opinion does not have any impact in what will be decided)
"Organization-Self Assessments"

Opportunity

Five items were designed to measure the diverse aspects suggested by Schneider, Gunnarson, and Wheeler (1992): past accomplishment, present availability and future opportunity. Three of the items are reverse scored.

- En la empresa o institución en la que laboro he encontrado lo que yo busco
  (I have obtained what I am looking for in the organization I work for)

- No he encontrado en la empresa o institución en la que laboro lo que yo esperaba
  (I have not found what I was expecting in the organization I work for)

- No existen en la empresa donde yo trabajo oportunidades para que logre lo que busco profesionalmente
  (I am lacking the opportunities to obtain what I strive for professionally in the organization where I work)

- Creo que la empresa o institución en la que trabajo me podrá dar en el futuro lo que yo busco
  (I believe the organization where I work will give me what I will look for in the future)

- No creo realmente poder alcanzar en la empresa o institución en la que trabajo lo que yo idealmente esperaría
  (I don’t believe I am going to get what I ideally expect from the organization I work for)

Alignment

No items have been found in the literature to measure alignment. For this study, five items were designed to measure employees’ perceived degree of fit with the culture, the climate and the managerial behavior in the organization.

- Coincido con la forma de pensar y valores de la empresa o institución en la que laboro
  (I agree with the values and way of thinking of the organization where I work)

- Frequentemente tengo conflictos éticos o morales por lo que tengo que hacer en la empresa o institución en la que trabajo
  (I frequently have ethical or moral conflicts in the organization where I work because of what I have to do there)

- Siento que los valores de la empresa o institución en la que trabajo y mis valores embonan bien
  (There is a good fit between the values of the organization I work for and my values)

- Siento que embono con el ambiente de la empresa o institución en que trabajo
  (I feel at ease with the atmosphere of the organization I work for)
Frequently I face an ethical conflict with the way managers behave in the organization I work for.

Resource Access

Five items were translated and adapted from Spreitzer (1992, p. 181, α = 0.81 & 0.84).

En la organización o institución en la que presto mis servicios, tengo acceso a la información que necesito para realizar mi trabajo (I have access to the information in my organization that I need to do my job)

Tengo acceso a los recursos que necesito para desempeñar bien mi trabajo en la organización o institución en la que laboro (I have access to the organizational resources I need to perform my job well)

Puedo obtener los fondos y materiales necesarios para realizar nuevas ideas y mejoras en mi área (I can obtain the materials and funds necessary to support new ideas and improvements in my area)

Cuando requiero de recursos adicionales para hacer mi trabajo, es difícil que los obtenga (When I need additional resources to do my job, I seldom get them)

Es difícil para mí realizar un trabajo profesional porque no tengo disponible todo el tiempo que requiero para ello (It is hard to do a professional job because I do not have all of the time I need to do it well)

Description of the Questionnaire in Social, Cognitive and Affective Assessments

The questionnaire was designed in such a way that the job section was first and the task section second. It seems that it would be easier for subjects to think first of the job as a whole and then think of an isolated activity than the other way around.

To impede subjects from categorizing questions and then entering patterns of responses according to the categorization, items for the job section are presented randomly in the questionnaire; except for job impact, which items have a common heading. Items for the Task section are also presented randomly, except for the last seven items in others’ competence and the last four in support, where comparative responses are desirable.
Items on task meaningfulness and task impact were the only variables that make reference to the goal or purpose of the task, which subjects wrote down before going to the items of the Task section. To help respondents to keep sight of that, the items for these two variables were presented together at the beginning of the Task section, but in a random order.

The response format for items in social, cognitive and affective assessments is a 7-point Likert scale. Anchors of the scale are as follows:

7. Totalmente de acuerdo (Completely agree),
6. Muy de acuerdo (Very much agree),
5. Algo de acuerdo (Somewhat agree),
4. Ni de acuerdo ni en desacuerdo (Neither agree nor disagree),
3. Algo en desacuerdo (Somewhat disagree),
2. Muy en desacuerdo (Very much disagree),
1. Totalmente en desacuerdo (Completely disagree).

Measures of Outcomes

Task Outcomes

Three scales were incorporated to measure diverse aspects of outcomes at the task level: mood, involvement and performance.

Task Involvement

Items were adapted from scales of job involvement and professional commitment (Kaldenberg, Becker, and Zvonkovic, 1995, alpha = 0.85 and 0.89 respectively), embracing both components of involvement. Two extra items were added. Leading instructions and items are included below.
Las afirmaciones de abajo se refieren a la actividad que escribió arriba como la más importante en su trabajo. Por favor señale marcando con una X en la casilla correspondiente qué tan de acuerdo está Ud. con cada afirmación (The statements below apply to the activity you wrote above as the most important one in your job. Please indicate your degree of agreement with each statement by marking X in the corresponding box)

- Me siento orgulloso de decir que yo hago esta actividad (I am proud to tell others that I do this)
  - [ ] Totalmente de acuerdo (Completely agree),    [ ] Muy de acuerdo (Greatly agree),
  - [ ] Algo de acuerdo (Somewhat agree),           [ ] Ni de acuerdo ni en desacuerdo (In between),
  - [ ] Algo en desacuerdo (Somewhat disagree),     [ ] Muy en desacuerdo (Greatly disagree),
  - [ ] Totalmente en desacuerdo (Completely disagree).

- En discusiones defiendo a esta actividad como algo muy valioso
  (I talk up this activity as something very worthwhile)

- Es una de las mejores actividades que se puedan hacer en un trabajo
  (This is the one of the best activities to do in a job)

- Realmente esta actividad me importa (I really care about this activity)

- Si volviera a empezar, elegiría un trabajo donde realizara esta actividad
  (If I could do it all over, I would still choose a job where I could do this activity)

- Si tuviera mucho dinero, de todas maneras seguiría dedicándome a esta actividad
  (If I had all the money I wanted, I would still do this activity)

- A veces me siento decepcionado de trabajar haciendo esta actividad
  (Sometimes I am disappointed that I ever worked doing this activity)

- La mayoría de mis metas personales giran alrededor de esta actividad
  (Most of my personal life goals are centered around this activity)

- Busco aprender todo lo que pueda sobre esta actividad (I learn all I can about this activity)

**Mood**

A scale was adapted from Alliger and Williams (1993, α=0.75 for positive mood, and α=0.86 for negative mood).

Las afirmaciones de abajo también se refieren a la actividad que escribió arriba como la más importante en su trabajo. Por favor señale marcando con una X en la casilla correspondiente qué tanto esta actividad le provoca los siguientes estados de ánimo (The feelings below also apply to the activity you wrote above as the most important one in your job. By marking X in the corresponding box, please indicate the degree in which this activity makes you experience each emotional state)
la disfruta (enjoyed)

[] Muchísimo (A great deal),  [] Mucho (A lot),  [] A veces (Some times)

[] Poco (A little),  [] Muy poco (Very little),  [] Nada (Nothing)

le resulta excitante (excited)

le hace sentir entusiasmado (enthusiastic)

lo estimula (aroused)

le hace sentir contento (happy)

le pone nervioso (nervous)

le pone triste (sad)

le provoca malestar (distressed)

le hace sentir infeliz (unhappy)

lo deja abatido (blue)

Task Performance

No scale has been found in the literature to measure these dimensions. The items below were particularly designed for the study. Instructions and response formats are the same than those for items of involvement.

Initiative

[] Tengo iniciativa cuando encuentro problemas al realizar esta actividad
   (I show initiative when facing problems in this activity)

[] Cada vez que empiezo esta actividad, demuestro iniciativa
   (I show initiative in getting started on the task)

Effort

[] He sido muy flojo realizando esta actividad (I am lazy in doing this activity)

[] Le echo muchas ganas a esta actividad (I work hard on this activity)
Resiliency

① He sido persistente y tenaz desempeñando esta actividad
(I have been tenacious and persistent in performing this activity)

② Fácilmente me desanoimo cuando encuentro obstáculos o dificultades en esta actividad
(I easily get discouraged when facing obstacles or difficulties in this activity)

Achievement

① Mi desempeño en esta actividad es muy alto comparado con el de mis colegas o compañeros
(My performance in this activity is high compared with that of my colleagues or coworkers)

② Me parece que es muy poco lo que logro cada vez que desempeño esta actividad
(I don’t seem to get much done each time I do this task)

Job Outcomes

Organizational Commitment

Penley and Gould’s (1988) organizational commitment scale was translated to Spanish. First five items below are for moral commitment (alpha = 0.86), and the remaining five for alienative commitment (alpha = 0.86). Items are presented randomly in the questionnaire. The response scale ask to check degree of agreement according to a seven-point Likert format having as anchors: “muchísimo” (a lot), “mucho” (much), “algo” (some), “poco” (little), “muy poco” (very little), “poquísimo” (utterly little) and “nada” (nothing).

Las siguientes preguntas se refieren a su sentir respecto a la empresa o institución donde Usted trabaja actualmente (The following questions are about your feelings toward the organization you work for):

① Me siento comprometido con esta organización (I am dedicated to this organization)

② Considero que es mi deber el apoyar a esta organización
(I feel it is my duty to support this organization)

③ Cuando estoy fuera me veo a mi mismo como un empleado de esta organización
(Whenever I am in public, I think of myself as an employee of this organization)

④ Siento que es una responsabilidad personal mía el ayudar a que esta organización sea exitosa
(It is my personal responsibility to help this organization achieve success)
Me molesta cuando la gente hace malos comentarios acerca de esta organización
(I get upset when people say bad things about this organization)

Algunas veces me dan ganas de irme para siempre de esta organización
(Sometimes I would like to walk out of this organization and never come back)

Frecuentemente siento deseos de desquitarme de lo que me ha hecho esta organización
(I often feel like I want to 'get even' with this company)

Me enojo cuando pienso en esta organización
(I get angry when I think about this organization)

Me siento atrapado en esta organización
(I feel trapped in this organization)

No importa lo que yo haga aquí, la organización nunca mejora
(No matter what I do around here, this organization never improves)

Job Satisfaction

Items for this variable have been translated from Kaldenberg, Becker and
Zvonkovic’s (1995) scale of job satisfaction (alpha = 0.85). Directions and items are
presented below.

Abajo se presentan una serie de frases y palabras que nos gustaría Usted usara para describir cómo se
siente en su trabajo. Por ejemplo, si Usted cree que su trabajo es “agradable” marque con una X
enfrente de la palabra “agradable”. Si Usted piensa que es muy “miserable”, marque con X
enfrente de la palabra “miserable”. Si piensa que es algo entre las dos, coloque la X donde crea
que mejor corresponda. (Here are some words and phrases which we would like you to use to
describe how you feel about your job. For example, if you think your job is very “enjoyable” put
an X in the box right next to the word “enjoyable”. If you think it is very “ miserable”, put a X
right next to the word “ miserable”. If you think it is somewhere in between, put an X where you
think it belongs.)

Agradable (Enjoyable)  []   []   []   []   []
Desagradable (Miserable)  []   []   []   []   []

Esperanzador (Hopeful)  []   []   []   []   []
Desalentador (Discouraging)  []   []   []   []   []

Pleno (Full)  []   []   []   []   []
Vacio (Empty)  []   []   []   []   []

Odioso (Unfriendly)  []   []   []   []   []
Amistoso (Friendly)  []   []   []   []   []

Inútil (Useless)  []   []   []   []   []
Valioso (Worthwhile)  []   []   []   []   []
Extra-role Behaviors

Items in extra-role behavior have been selected from Fisher and Locke (1992), Morrison (1994), and Roznowski and Hulin (1992). Subjects are asked to answer how often do they present each of the behaviors. The response is given in a 6-point scale: Never, once a year, once every six months, once a month, once a week, and once or more a day.

Por favor señale con que frecuencia manifiesta las siguientes conductas en la empresa u organización donde presta sus servicios (Please answer the frequency in which you manifest the following behaviors in the organization you work for).

1. Orientar o animar a nuevos empleados aunque no se le haya pedido (Helping to orient or giving encouragement to new employees even when not asked)
2. Ofrecerse voluntariamente a hacer trabajo no requerido (Volunteering to do work you are not required to do)
3. Tratar de aprender más de su trabajo o de otros trabajos (Trying to learn more about your job or other jobs)
4. Trabajar duramente algunas veces para compensar los periodos cuando se ha atrasado (Working extra hard sometimes to make up for periods you may have slacked off)
5. Llegar más temprano al trabajo para iniciar mejor el día (Arriving at work early to get a start on the day's work)
6. Apoyar con su trabajo a compañeros ausentes (Helping others with work when they have been absent)
7. Ayudar a gente con una carga alta de trabajo (Helping people who have heavy workloads)
① Darse tiempo para ayudar a gente con problemas de trabajo
( Helping people with work-related problems)

② Asistir a clientes o visitantes cuando requieren ayuda aunque no sea requerido
( Helping customers or visitors if they need assistance even when not asked)

③ Deambular tratando de verse ocupado (Wandering around trying to look busy)

④ Buscar excusas para salir del trabajo (Making excuses to go somewhere to get out of work)

⑤ Hacer lo menor posible (Doing as little work as possible)

**Intention to Remain**

Intenções to remain were considered here according to two dimensions: scope of the intention (area, job or career) and seriousness of the intention (from occasionally thinking about withdrawal to having definite plans to leave). The response format is a six-point Likert scale having as anchors: “Completamente de acuerdo” (Strongly agree) and “Completamente en desacuerdo” (Strongly disagree), except for items in intention to remain. (less than one month, from one to four months, from four months to a year, from one to two years, from two to five years, more than five years)

Las siguientes preguntas se refieren al grado de consideración que le ha dado a la posibilidad de dejar su área o departamento de trabajo y la empresa o institución en la que trabaja (The following questions are about how strongly you are considering leaving your job area or department or the organization you work for)

⑥ Ocasionalmente he pensado en cambiar de área o departamento en mi trabajo
(I have occasionally thought about changing the area or department where I work)

⑦ He hecho intentos deliberados para cambiar a otra área o departamento en mi trabajo
(I have deliberately tried to move to another area or department)

⑧ Si hubiese una buena alternativa no duraría en cambiar de área o departamento en mi trabajo (If I had a chance I will move to another area or department without further consideration)

⑨ Intento permanecer en mi área o departamento de trabajo durante
(It is my intention to remain in my area or department):
no más de un mes (no more than a month)
de un mes a cuatro meses (from one to four months)
de cuatro meses a un año (from four months to a year)
de un año a dos años (from one to two years)
de dos a cinco años (from two to five years)
más de cinco años (more than five years)

® Ocasionalmente he pensado en cambiar de empresa o institución
(I have occasionally thought about leaving the organization)

® He hecho intentos deliberados para cambiar de empresa o institución
(I have deliberately tried to move to another organization)

® Si hubiese una buena alternativa no duraría en cambiar de empresa o institución
(If I had a chance I will move to another organization without further consideration)

® Intento permanecer en esta empresa o institución durante: no más de un mes, de un mes a cuatro meses, de cinco meses a un año, de un año a dos años, de dos a cinco años, más de cinco años
(It is my intention to remain in this organization: no more than a month, from one to four months, from four months to a year, from one to two years, from two to five years, more than five years)

® Intento permanecer en este tipo de trabajo durante: no más de un mes, de un mes a cuatro meses, de cinco meses a un año, de un año a dos años, de dos a cinco años, más de cinco años
(It is my intention to remain in this type of job: no more than a month, from one to four months, from four months to a year, from one to two years, from two to five years, more than five years)

Measures of Organizational Interventions

Two items are included at the end of the questionnaire to measure to what extent empowering interventions have been tried or implemented in the respondent’s organization. Scale was 0 for “not implemented” and 1 for “implemented”.

Las siguientes preguntas se refieren a si en la empresa u organización en la que Usted trabaja se han efectuado cambios o se han implementado proyectos dirigidos a cambiar la manera como se trabaja, se organizan y se toman decisiones (The following items ask whether the organization where you work has made changes or has implemented projects to change the way of working, organizing and making decisions).

Señale con una cruz cuál de los siguientes enfoques se ha implementado o intentado implementar en su empresa u organización. Marque todos los que se apliquen (Check below all of the approaches that have been implemented or tried to implement in your organization)

[ ] Calidad Total, Enfoques de mejora continua, Cero defectos, QFD (Total quality, continuous improvement approaches, zero defects, QFD)
[ ] Sistemas justo a tiempo, Kanban (Just in time systems, kanban)
[ ] Programas para certificación de ISO 9000 (Programs for ISO9000 certification)
Four items were designed to qualify the empowering intervention that have had the highest impact according to duration of implementation, managerial commitment, effectiveness for organization and effectiveness for people. Items are as follows.

Responda las siguientes 4 preguntas sólo si marcó alguna de las alternativas de arriba (Please answer the following 4 questions only if you checked at least one item above).

- Considerando en conjunto los enfoques que marcó Usted arriba, ¿durante cuánto tiempo se han venido implementado o trabajando por implementarlos? (Considering as a whole the approaches you checked above, for how long have they been implemented or tried to be implemented?)
  - 6 meses o menos (6 months or less)
  - entre 6 meses y un año (from 6 months to a year)
  - entre uno y dos años (from 1 to 2 years)
  - entre dos y tres años (from 2 to 3 years)
  - entre tres y cinco años (from 3 to 5 years)
  - más de cinco años (more than 5 years)

- ¿Cuál ha sido en general el grado de compromiso de la empresa y la gerencia por adoptar los enfoques que Usted marcó arriba y realizar los cambios que se requieren? (What has been the organization's and management's degree of commitment in adopting the approaches you checked above and in implementing the changes required by them?)
  - Muy alto compromiso (Very high commitment)
  - Alto compromiso (High commitment)
Compromiso moderado (Moderate commitment)
Alguna falta de compromiso (Some lack of commitment)
Completa falta de compromiso (Complete lack of commitment)

• ¿Qué tan benéficos considera Usted que han resultado estos enfoques para la empresa? (How much have these approaches been beneficial for the organization?)
  Extremadamente (Extremely) Mucho (Very much)
  Moderadamente (Moderately) Poco (Little)
  Nada (None)

• ¿Qué tan benéficos considera Usted que han resultado estos enfoques para el personal? (How much have these approaches been beneficial for the employees?)
  Extremadamente (Extremely) Mucho (Very much)
  Moderadamente (Moderately) Poco (Little)
  Nada (None)

Control Variables

Mitchell and colleagues (1994) presented evidence that the role of both self-efficacy perceptions and goals in determining performance changes during the process of skill acquisition. At the beginning, when facing a novel task or challenge, people are more focused in the relationship between the self and the tasks, being self-efficacy considerations a more important determinant of behavior than such motivational aspects as expectancies and goals. At this stage, there is a high demand of cognitive processing, which is more central and controlled. As people become more skilled in the diverse aspects of the task, cognitive assessments of the task-self relationship are less important and the cognitive processing becomes more automatic and peripheral. At this stage, goals and meaningfulness are more important predictors of performance than self-efficacy assessments.

It seemed that tenure could be a moderator variable in the relationship between self-efficacy, meaningfulness and empowerment. It also could be the case for age and educational level. Thus, age was computed by using year of birth and educational level was asked by an item (0=High School Diploma, 1=Technical College, 2=Undergraduate, 3=Master Graduated and 4=Doctor Graduated). Two
additional items were designed to measure tenure in organization and tenure in position (1 = less than a year, 2 = from one to three years, 3 = from three to six years, 4 = from six to 12 years, and 5 = more than 12 years).

Analysis

Before testing the hypotheses, four factor analyses were run to determine whether individual items in the questionnaire grouped according to the variables in the social, cognitive and affective model of empowerment. Each analyses corresponded to each major box in the model (see Figure 8):

- Task assessments (41 items)
- Job assessments (35 items)
- Task outcomes (27 items)
- Job outcomes (40 items).

Following suggestions by Hair, Anderson and Tatham (1987), varimax rotation was done. Items contributing double loadings to factors were excluded. Resulting factors were interpreted and compared with the variables they were intended to measure. Items with loadings higher than 0.40 to factors representing the variables in the model were averaged to compute scores of the variable. Internal reliability analyses were done for those items by computing Cronbach’s alpha coefficients.

Testing of Hypothesis 1

Hypothesis 1 (see Section “Hypotheses” in Chapter 3) proposed that employees’ task outcomes were predicted by task-self assessments. Hierarchical multiple regression (HMR) was used to test this hypothesis. A regression was run for each of the task outcomes. First, HMR took care of extraneous variance by control variables (Age, Study Level, Position tenure and Tenure in organization) and empowering interventions (Interventions and qualifiers of interventions). Thus, step 1
entered control variables, step 2 entered empowering interventions (16 variables indicating if diverse organizational practices are implemented in the organization) and step 3 entered qualifiers of interventions (4 variables evaluating the diverse aspects of the empowering interventions implemented in the organization: time being implemented, management commitment, organizational good and employees good). After removing extraneous variance, steps 4 entered the variables of interest for Hypothesis 1 (Task-Self variables: Task Self-Efficacy, Task Meaningfulness, Task Choice, and Task Impact). Significance of changes in the coefficients of determination for each of the steps of the HMRs was determined. Also, significance of beta weights of task-self variables was observed.

**Testing of Hypothesis 2**

This hypothesis proposed that in the prediction of employees’ task outcomes, employees’ context-self assessments accounts for additional variance to the variance accounted by task-self assessments. HMRs ran for Hypothesis 1 were repeated, entering context-self assessments in a new 5th step. As above, significance of changes in the coefficients of determination for step 5 of the HMRs were considered. Similarly, significance of beta weights of context-self variables was determined.

**Testing of Hypotheses 3 and 4**

Hypotheses 3 and 4 were similar to Hypotheses 1 and 2 but they were about assessments and outcomes at the job level. Consequently; similar statistical analyses were performed.

**Testing of Hypotheses 5 and 6**

These hypotheses made comparisons of the predictions of outcomes by assessments. As in previous regression analyses, hierarchical multiple regression (HMR) was used for each of the outcomes as a criterion variable. Two HMRs were
run for each criterion variable. The last step included task assessments for one of the HMRs and job assessments for other HMR. The change on the multiple coefficient of determination ($R^2$ Change) in the last step was computed. In each case, control variables and assessments not entered in the last step (job assessments when task assessments were focused and the other way around) were entered to remove any variance accounted by them. To test hypothesis that $R^2$ change was higher in a case than in another, corresponding $R$ Change were computed and, following indications by Morrison (1978), transformed by using Fisher's-$z$ formula:

$$z = 0.5 \ln \left( \frac{1 + r}{1 - r} \right)$$

Following Morrison’s (1978) suggestions, $d$ was computed by using:

$$d = \frac{\bar{z}_1 - \bar{z}_2}{\sqrt{\frac{1}{N_1 - 3} + \frac{1}{N_2 - 3}}}$$

Considering the null hypothesis $H_0 : \rho_1 \leq \rho_2$ and the alternative hypothesis $H_1 : \rho_1 > \rho_2$, the one tailed decision rule was used:

Accept $H_0$ if $|d| \leq z_\alpha$ and Reject $H_0$ if $|d| > z_\alpha$

with $z_{0.10} = 1.28,$

$z_{0.05} = 1.65$ and

$z_{0.01} = 2.33.$

**Testing of Hypothesis 7**

As in Hypotheses 5 and 6, this hypothesis is about the comparison of predictors (assessments versus interventions in the prediction of outcomes). A similar statistical analysis was performed by running two HMRs for each outcome variable. A pair of HMRs were run for each outcome. For each pair, the first HMR entered
variables in the following order: control variables, assessments, and interventions. The second HMR entered variables in the following order: control variables, interventions, and assessments. Changes on the multiple coefficient of determination were observed for interventions, in the first case, and assessments, in the second. Changes on the multiple coefficient of determination were compared as described in the previous section.

**Testing of Hypotheses 8 and 9**

These hypotheses proposed diverse comparisons of variables between organizations implementing and not implementing empowering interventions. Because it implied the comparison of multiple means, multivariate analysis of variance (MANOVA) was used. Hotteling’s T statistic was used to test significance of the differences. For the variables where significant statistical differences were found, post hoc univariate analysis of variance (ANOVA) were run to determine which variables accounted for the difference.
Chapter 5:  
Results

Descriptive Statistics for Items

Descriptive statistics for items in the study are presented in Appendix A. It includes means and the standard deviations of items. All reverse-scored items were recoded in a positive direction.

Factor Analyses

Four factor analyses were run, one for each major group of variables: task assessments, job assessments, task outcomes, and job outcomes. Varimax, equamax and quartimax (Norusis, 1988) were tried as methods of rotation, but no major differences in the groupings of items were found. Oblique rotations through procedure oblimin never improved the grouping of items in terms of interpretability. Thus, the varimax results were used for the study.

In the analysis of factors, items with double loadings were excluded. To decide whether an item had double loading the following rule of thumb was used: the difference of the two largest factor loadings was 0.10 or less. Table 7 presents the items that were accepted using this criterion to measure each of the variables in the study after performing factor analyses and reliability analyses. Cronbach’s alpha was used to determine internal consistency.
Table 7.
Cronbach’s alpha values for variables in the study.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Items</th>
<th>α</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Task Variables</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task Self Variables</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task Self-Efficacy</td>
<td>TSE1, TSE2, TSE3, TSE4</td>
<td>0.81</td>
</tr>
<tr>
<td>Task Meaningfulness</td>
<td>TMN2, TMN5</td>
<td>0.64</td>
</tr>
<tr>
<td>Task Choice</td>
<td>TCH1, TCH2, TCH3, TCH4, TCH5</td>
<td>0.85</td>
</tr>
<tr>
<td>Task Impact</td>
<td>TIM1, TIM4, RAV3</td>
<td>0.52</td>
</tr>
<tr>
<td>Context Self Variables</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others competence</td>
<td>OTC1, OTC2, OTC3, OTC4</td>
<td>0.80</td>
</tr>
<tr>
<td>Others shortcomings</td>
<td>OTC6, OTC7, OTC8</td>
<td>0.80</td>
</tr>
<tr>
<td>Social support</td>
<td>SUP3, SUP4, SUP5</td>
<td>0.73</td>
</tr>
<tr>
<td>Organiz. Support</td>
<td>RAV2, RAV4, RAV5, RAV6</td>
<td>0.82</td>
</tr>
<tr>
<td><strong>Job Variables</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Job Self Variables</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Job Self-Efficacy</td>
<td>JSE1, JSE2, JSE3</td>
<td>0.70</td>
</tr>
<tr>
<td>Job Meaningfulness</td>
<td>JMN1, JMN2, JMN3</td>
<td>0.84</td>
</tr>
<tr>
<td>Job Choice</td>
<td>JCH1, JCH2, JCH3</td>
<td>0.79</td>
</tr>
<tr>
<td>Job Impact</td>
<td>JIM1, JIM2, JIM3, JIM4, JIM5</td>
<td>0.85</td>
</tr>
<tr>
<td>Organization Self Variables</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Opportunity</td>
<td>OPP2, OPP3, OPP4, OPP5, JMN4</td>
<td>0.84</td>
</tr>
<tr>
<td>Alignment</td>
<td>ALG1, ALG3</td>
<td>0.76</td>
</tr>
<tr>
<td>Resource Access</td>
<td>RES1, RES2, RES3, RES4, JSE4</td>
<td>0.84</td>
</tr>
<tr>
<td><strong>Outcome Variables</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task Outcomes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positive Mood</td>
<td>MOD1, MOD2, MOD3, MOD4, MOD5</td>
<td>0.92</td>
</tr>
<tr>
<td>Negative Mood</td>
<td>MOD7, MOD8, MOD9, MOD10</td>
<td>0.77</td>
</tr>
<tr>
<td>Task Involv.-Proud</td>
<td>TIN1, TIN2, TIN3, TIN4</td>
<td>0.80</td>
</tr>
<tr>
<td>Task Involv.-Commit</td>
<td>TIN6, TIN7, TIN9</td>
<td>0.58</td>
</tr>
<tr>
<td>Task Performance</td>
<td>EFF1, EFF2, RSL2, IN1</td>
<td>0.75</td>
</tr>
<tr>
<td>Job Outcomes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Job Satisfaction</td>
<td>JST1, JST2, JST3, JST4, JST5, JST6, JST7, JST8, JST9, JST10, OCO2</td>
<td>0.93</td>
</tr>
<tr>
<td>Organiz. Commitment</td>
<td>OCO1, OCO4, OCO6, OCO8, OCO10</td>
<td>0.70</td>
</tr>
<tr>
<td>Organiz. Aversion.</td>
<td>OCO3, OCO7, OCO8</td>
<td>0.64</td>
</tr>
<tr>
<td>Extra-Role Behavior</td>
<td>ERB4, ERB6, ERB9, ERB10, ERB11</td>
<td>0.77</td>
</tr>
<tr>
<td>Organiz. Remain Int.</td>
<td>WTH4, WTH6, WTH7, WTH8</td>
<td>0.78</td>
</tr>
<tr>
<td>Depart. Remain Int.</td>
<td>WTH1, WTH2, WTH3</td>
<td>0.69</td>
</tr>
</tbody>
</table>
Factor Analyses for Task Items

Forty one items in the questionnaire were aimed at measuring task-self variables (22 for task-self assessments & 19 for context-self assessments; see Appendix A, Tables A1 & A2). Varimax analysis resulted in thirteen factors (see Appendix B, Table B1) with an eigenvalue higher than 1.0. These factors accounted for 69.9 percent of the variance (see Table B2). Items dropped because of double loadings were SUP2, TSE7, OTC5, RAV1, TSE5 and TIM5.

Each of the task assessments (task self-efficacy, task meaningfulness, task choice, task impact, others' competence, social support and organizational support) were reviewed to determine how well each of them was represented by factors.

- **Task Self-Efficacy** was measured by Factor 3 (Table B1), formed by items TSE1, TSE2, TSE3 and TSE4, after dropping TSE7. Cronbach alpha was 0.81 (see Table 7). Factor 11 also seems to measure another aspect of self-efficacy, considering that item TIM5 (“What I do has a significant impact over the accomplishment of the purpose of this activity”) may convey not only an aspect of impact but also of self-efficacy implicit in the assessment of the self expressed by “what I do” is not good enough to get the expected results. However, because reliability was low (alpha = 0.43), this factor was not included in further analysis. Only Factor 3 was kept as a measure of task self-efficacy.

- **Task Meaningfulness**, measured by Factor 7 (Table B1), was left with only two items TMN5 and TMN2. The remaining three items in task meaningfulness were spread in Factors 10, 12 and 13. Items TMN4 and TMN5 were left alone in factors 10 and 12 after dropping the double loaded items TSE5 and TIM5. Factor 13 was difficult to interpret as either meaningfulness or impact due to the association of grouping with items TIM3 and TMN1 (the task purpose is worthwhile to me and what I do is conducive to the purpose) and its reliability was low (Alpha = 0.44).
Thus, Factor 7 was kept as measuring of task self-meaningfulness. Although reliability was not very high, it was adequate for further analysis (Cronbach alpha = 0.64).

- **Task choice** was well represented by Factor 1. Its Cronbach’s alpha value was 0.85 (see Table 7).

- **Task impact** was left with two of the original items TIM1 and TIM4 in Factor 9. The factor also included item RAV3 which is proper, considering that time availability could be perceived as an element that fosters or limits autonomy. However, reliability for these items is low (alpha = 0.52) and did not improve by excluding any item. This factor was included as a measure of task impact in further analyses but caution will be used regarding conclusions in which it was involved.

- **Items for others’ competence** were broken down in two factors. Items in Factor 4 (OTC1, OTC2, OTC3, OTC4 and OTC5) can be interpreted as others’ competence, with an adequate reliability (alpha = 0.80). Items in Factor 5 can be interpreted as others’ shortcomings. Its reliability was also adequate (alpha = 0.80). Both dimensions of others’ competence were included for remaining analyses.

- **Social support** was well measured by items SUP3, SUP4 and SUP5 clustered in Factor 6. Its reliability was good (alpha = 0.74). Item SUP1 in Factor 8 was excluded because it was a single item after excluding double-loaded item RAV1.

- **Organizational support** was well represented by items RAV2, RAV4, RAV5 and RAV6, with an alpha of 0.82.

In summary, most items in task assessments clustered as expected. Except for task impact, all of the assessments are adequately measured by at least two items and
with adequate internal consistency as measured by Cronbach’s alpha. Items in others’ competence grouped in two factors: others’ competence and others’ shortcomings.

**Factor Analyses for Job Items**

Thirty five items in the questionnaire were included to measure job assessments (20 for job-self assessments and 15 for organization-self assessments; see Appendix A, Tables A4 & A5). Varimax analysis resulted in eight factors (see Appendix B, Table B3) with an eigenvalue higher than 1.0. The eight factors accounted for 65.9 percent of the variance (see table B4). Items dropped because of double loadings were OPP1, JMN5, ALG4, JCH5, JCH4, ALG5 and ALG2. Representativeness of assessments by factors is discussed below.

- **Job self-efficacy** was well represented by Factor 8, containing items JSE1, JSE2 and JSE3 (see Appendix B, Table B3). Table 7 shows that Cronbach alpha for this assessment was adequate (0.70). Items JSE4 and JSE5 entered into other factors and their role is analyzed below.

- **Job meaningfulness** was represented by Factor 4, which clustered items JMN1, JMN2 and JMN3. Internal consistency was also adequate (Cronbach’s alpha equal to 0.84, Table 7). Item JMN5 was excluded because of its double loading. Item JMN4 entered to Factor 1, discussed below.

- Factor 5 clustered three items on job choice: JCH1, JCH2 and JCH3. With a Cronbach’s alpha of 0.79 it was a good measure of the assessment. The remaining items in job choice were excluded because of their double loading.

- The five items in job impact (JIM1 to JIM5) went to factor 3. Cronbach’s alpha (0.85) represented very good internal consistency.
• Items OPP2, OPP3, OPP4 and OPP5 loaded high in Factor 1, representing opportunity assessments adequately. Item JMN4 (I’d rather have a job that is more worthwhile) also entered on Factor 1, indicating that it was interpreted by subjects in the sense of aspirations in the job. Item OPP1 was excluded because of double loadings. Cronbach’s alpha was 0.84, which is very good.

• After excluding three items in alignment (ALG2, ALG4 & ALG5) because of double loadings, this assessment was left with only two items (ALG1 & ALG3) grouped in Factor 6. Because both items make reference to values, the assessment was better labeled as Value Alignment. Measure of internal consistency for these items was suitable (alpha = 0.76).

• Four of the items in resource access (RES1 to RES4) entered to Factor 2, representing an adequate measure of this assessment. Also entered item JSE4 (I have what it takes to be very successful in my present job), which seems that “what it takes” was interpreted as resources. Internal consistency was adequate (alpha = 0.84).

Factor 6 was left with two items (JSE5 & RES5) after the remaining were excluded because of their double loadings. No further consideration was given to the factor because internal consistency was very low (Cronbach’s alpha = 0.41).

In summary, most items in job assessments clustered as expected. The seven assessments were well represented by items in the questionnaire.

**Factor Analysis for Task Outcome Items**

Twenty seven items in the questionnaire were to measure task outcome assessments (see Appendix A, Table A3). Five items with double loadings were dropped: INI2, TIN8, RSL1, ACH2 and TIN5 (see Appendix B, Table B5). Six
factors with eigenvalues higher than 1 resulted from the factor analysis. Factors accounted for 63.3 percent of the items' variance (see Table B6). An analysis of outcomes represented by these factors follows.

- Items for Mood were broken down in two parts (see Appendix B, Table B5): items MOD1 to MOD5, which went to Factor 1, refer to Positive Mood; and items MOD7 to MOD10, which went to Factor 3, refer to Negative Mood. The role of item MOD6 ("I feel nervous") is interesting because it grouped first with ACH1 (My performance in this activity is high) in Factor 6, which has a positive meaning, but also contributed to Factor 3 "Negative Mood". This can be explained because "being nervous" in colloquial Spanish translates either as "being stressed" or as "being energized". However, Factor 6 was not used in any way because its reliability was very low (Cronbach's alpha = 0.30). Remaining items that loads to Factors 1 and 3 were excluded because of double loadings. Both dimensions of mood as measured by Factors 1 and 3 were accepted for further analysis, considering that their reliability was good (alpha for positive mood = 0.92, and alpha for negative mood = 0.77; Table 7).

- Items in task involvement were also broken down in two groups: Items TIN1 to TIN4 went to Factor 4 and items TIN5, TIN6, TIN7 and TIN9 went to Factor 5 (but TIN5 was excluded because double loading). Factor 4 seems to refer to pride and social recognition from performing the activity, implying a kind of involvement based on extrinsic sources (see Appendix A, Table A3). This assessment was labeled proud involvement. Factor 5 seems to imply a kind of task commitment coming from more intrinsic motivations. This assessment was labeled committed involvement. Item TIN8 went to another factor but it was excluded because of double loading. As Table 7 shows, internal consistency was good for proud involvement (alpha = 0.80) and moderately low for committed involvement.
(alpha = 0.58). Both dimensions of involvement were used in further analyses as measures of task involvement.

- Factor 2 included most items on Task Performance. Although any item in achievement was accepted in there, the items included assess the diverse aspects of task performance as expressed by Bandura’s Social Cognitive Theory: initiative (INI1), effort (EFF1 & EFF2) and persistence (RSL2). Because Cronbach alpha was adequate (0.75), Factor 2 was accepted as a measure of the outcome.

In conclusion, factor analysis resulted in most of the items in the questionnaire clustered as expected. Two assessments, mood and task involvement, appeared to have two underlying dimensions. Measures of internal consistency were suitable for further analyses.

**Factor Analysis for Job Outcome Items**

Forty items in the questionnaire corresponded to job outcomes (see Appendix A, Table A6). Items dropped because of double loadings were: WTH5, OCO9, OCO5, ERB5 and ERB7 (see Appendix B, Table B7). Items clustered in nine factors with eigenvalues higher than 1.0 (see Table B8). These factors accounted for 62.2 of the variance of items. An analysis of the match between factors and outcomes follows.

- All ten items in job satisfaction clustered very well in Factor 1. Item OCO2 (sometimes I would like to walk out of this organization and never comeback) was also accepted in the factor; which is acceptable considering that it is implying an aspect of job satisfaction (the loading for this item is positive because, as explained above, reverse scored items were recoded). Because reliability for the factor was very good (alpha = 0.93), it was kept as a measure of the outcome.
• Regarding organizational commitment, all items that had a positive wording (OCO1, OCO4, OCO6, OCO8 & OCO10; see Appendix A, Table A6) loaded on Factor 4, being representative of the construct organizational commitment (OCO9 had a double loading). Its internal consistency was good (alpha = 0.70). On the other hand, items OCO3, OCO7 and ERB8 in Factor 6 refer to the opposite of organizational commitment, which was labeled organizational aversion (item ERB5 had a double loading). Internal consistency for this dimension was appropriate (alpha = 0.64). Both factors were accepted as measuring organizational commitment.

• Items in Extra Role Behaviors broken down into diverse factors: a major one (Factor 2 in Appendix B, Table B7) and three including just one or two items (Factors 7, 8 & 9). Items ERB4, ERB6, ERB9, ERB10 and ERB11 in Factor 1 reflect positive helping pro-social behavior on the job. This factor had good internal consistency (alpha = 0.77) and was kept as a measure of pro-social extra-role behavior. Because the remaining factors refer to diverse isolated behaviors (Factor 8 was left with a single item after excluding the others because of double loadings, and Factor 9 already had just one item) and reliability was low (alpha = 0.52 for items in Factor 7) they were not included in any further analysis.

• Items in intentions to remain were also broken down in two dimensions. On the one hand, items in Factor 5 (WTH1, WTH2 & WTH3, excluding double-loaded item OCO5; Table B7) refer to withdrawal/remain intentions regarding the department. On the other hand, items in Factor 3 (WTH4 to WTH8, but excluding double-loaded item WTH5) refer to withdrawal/remain intentions regarding the organization, except for item WTH8. This item (it is my intention to remain in my area or department no more than a month) refers to the department, but it may be argued that considering leaving the organization implies leaving the department.
Thus, Factor 5 was labeled intentions to remain in department and Factor 3 intentions to remain in organization. Because their internal consistency was good (alpha = 0.69 and 0.78, respectively), these set of items were included in further analyses as measures of remain/withdrawal intentions.

In summary, most items on job outcomes clustered as expected. Items on job satisfaction clustered very well. Items on organizational commitment and on intentions to remain resulted in two underlying dimensions. Items in extra role behavior went to four diverse dimensions: a major one (pro-social behavior), which was kept, and the other with isolated items, which were dropped.

**Descriptive Statistics for Variables**

Variables used in the study were computed by averaging the scores of items that were accepted by the factor analysis procedures described in the preceding section. For the variables that resulted with an underlying negative dimension (others' shortcomings, negative mood, and organizational aversion; Table 8), item averages were multiplied by minus 1 to mathematically represent their character as complements to the positive dimension of the original variables proposed in the model. Variables —and items used to compute them— are presented along with alphas in Table 7.

**Table 8.**
Underlying dimensions of the original variables in the social, cognitive and affective model of empowerment (see Figure 8) as found by factor analyses.

<table>
<thead>
<tr>
<th>Original Variables</th>
<th>Positive Dimension</th>
<th>Negative Dimension</th>
</tr>
</thead>
<tbody>
<tr>
<td>Others’ competence</td>
<td>Others’ competence</td>
<td>Others’ Shortcomings</td>
</tr>
<tr>
<td>Mood</td>
<td>Positive Mood</td>
<td>Negative Mood</td>
</tr>
<tr>
<td>Organizational Commitment</td>
<td>Organizational Commitment</td>
<td>Organizational Aversion</td>
</tr>
</tbody>
</table>
Means and standard deviations for variables in the study are presented in Table 9. Variables with smallest variance were task-self efficacy, job self-efficacy, job meaningfulness and task performance. Highest means were for variables on self-efficacy and meaningfulness, representing a sample relatively high in assessments of competence and significance. Additionally, variables in self-efficacy presented a small range. A possible ceiling effect could be present in the case of these variables. Correlation matrices for variables that were entered together as predictors in multiple regression analyses are depicted in Tables 10 and 11. Pearson’s correlation coefficients were lower than 0.60 in all cases, and therefore did not represent a problem of multicollinearity.

Results for Task Variables

Hierarchical Multiple Regression (HMR) was used to test Hypotheses 1 and 2. As depicted in Tables 12, 13 and 14, a regression was run for each of the Task Outcomes (Task Extrinsic Involvement, Task Intrinsic Involvement, Performance, Positive Mood, and Negative Mood). The first three steps in HMR entered variables accounting for extraneous variance. Step 1 entered control variables, Step 2 entered empowering interventions, and Step 3 entered qualifiers of interventions. Steps 4 entered the variables of interest for Hypothesis 1 (Task-Self Assessments: Task Self-Efficacy, Task Meaningfulness, Task Choice, and Task Impact). Finally, Step 5 entered the variables of interest for Hypothesis 2 (Context-Self Assessments: Others’ Competence, Others’ Shortcomings, Social Support, and Organizational Support).

Table 12 depicts degrees of freedom for the regressions and the residuals in each of the steps. Table 13 contains coefficients of determination (R) and changes in the coefficient of determination (R-ch) as additional set of variables are introduced at each step. Finally, Table 14 presents beta weights and significance levels for diverse predictors of task outcomes.
Table 9.
Descriptive statistics for main variables in the study.

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Task variables</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task Self-Efficacy</td>
<td>6.42</td>
<td>0.61</td>
<td>3.50</td>
<td>7.00</td>
</tr>
<tr>
<td>Task Meaningfulness</td>
<td>6.05</td>
<td>0.96</td>
<td>2.00</td>
<td>7.00</td>
</tr>
<tr>
<td>Task Choice</td>
<td>5.54</td>
<td>1.16</td>
<td>1.20</td>
<td>7.00</td>
</tr>
<tr>
<td>Task Impact</td>
<td>4.97</td>
<td>0.96</td>
<td>1.67</td>
<td>7.00</td>
</tr>
<tr>
<td>Others competence</td>
<td>5.66</td>
<td>1.03</td>
<td>2.50</td>
<td>7.00</td>
</tr>
<tr>
<td>Others shortcomings</td>
<td>-5.27</td>
<td>1.45</td>
<td>1.33</td>
<td>7.00</td>
</tr>
<tr>
<td>Social support</td>
<td>5.56</td>
<td>0.95</td>
<td>2.33</td>
<td>7.00</td>
</tr>
<tr>
<td>Organizational Support</td>
<td>5.31</td>
<td>1.37</td>
<td>1.00</td>
<td>7.00</td>
</tr>
<tr>
<td><strong>Job variables</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Job Self-Efficacy</td>
<td>6.43</td>
<td>0.53</td>
<td>4.00</td>
<td>7.00</td>
</tr>
<tr>
<td>Job Meaningfulness</td>
<td>6.65</td>
<td>0.53</td>
<td>2.67</td>
<td>7.00</td>
</tr>
<tr>
<td>Job Choice</td>
<td>5.79</td>
<td>0.93</td>
<td>2.00</td>
<td>7.00</td>
</tr>
<tr>
<td>Job Impact</td>
<td>5.44</td>
<td>1.06</td>
<td>1.80</td>
<td>7.00</td>
</tr>
<tr>
<td>Alignment</td>
<td>5.95</td>
<td>0.95</td>
<td>2.00</td>
<td>7.00</td>
</tr>
<tr>
<td>Resource Access</td>
<td>5.67</td>
<td>1.04</td>
<td>2.20</td>
<td>7.00</td>
</tr>
<tr>
<td>Opportunity</td>
<td>5.24</td>
<td>1.37</td>
<td>1.60</td>
<td>7.00</td>
</tr>
<tr>
<td><strong>Task Outcomes</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positive Mood</td>
<td>5.15</td>
<td>0.69</td>
<td>2.00</td>
<td>6.00</td>
</tr>
<tr>
<td>Negative Mood</td>
<td>-5.16</td>
<td>0.92</td>
<td>2.50</td>
<td>6.00</td>
</tr>
<tr>
<td>Task Extrinsic Involvement</td>
<td>6.17</td>
<td>0.77</td>
<td>3.75</td>
<td>7.00</td>
</tr>
<tr>
<td>Task Intrinsic Involvement</td>
<td>5.87</td>
<td>1.04</td>
<td>1.33</td>
<td>7.00</td>
</tr>
<tr>
<td>Task Performance</td>
<td>5.44</td>
<td>0.53</td>
<td>3.50</td>
<td>6.25</td>
</tr>
<tr>
<td><strong>Job outcomes</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Job Satisfaction</td>
<td>4.49</td>
<td>0.65</td>
<td>2.00</td>
<td>5.18</td>
</tr>
<tr>
<td>Organization Commitment</td>
<td>5.91</td>
<td>0.83</td>
<td>2.80</td>
<td>7.00</td>
</tr>
<tr>
<td>Organizational Aversion</td>
<td>-6.48</td>
<td>0.72</td>
<td>3.33</td>
<td>7.00</td>
</tr>
<tr>
<td>Extra-Role Behavior</td>
<td>4.46</td>
<td>0.96</td>
<td>1.40</td>
<td>6.00</td>
</tr>
<tr>
<td>Organization Remain Int.</td>
<td>4.04</td>
<td>0.98</td>
<td>1.00</td>
<td>5.50</td>
</tr>
<tr>
<td>Department Remain Intent.</td>
<td>3.24</td>
<td>1.10</td>
<td>1.00</td>
<td>5.00</td>
</tr>
</tbody>
</table>

*Note: M = Mean; SD = Standard deviation; Min & Max = Minimum & Maximum Absolute value.*
Table 10.
Pearson’s correlation coefficient matrix for Task variables.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Task Self-Efficacy</td>
<td>...</td>
<td>.25</td>
<td>.32</td>
<td>.35</td>
<td>.32</td>
<td>-.25</td>
<td>.24</td>
<td>.32</td>
</tr>
<tr>
<td>2. Task Meaningfulness</td>
<td>.18</td>
<td>.20</td>
<td>.17</td>
<td>-.05</td>
<td>.21</td>
<td>.02</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Task Choice</td>
<td>.43</td>
<td>.51</td>
<td>-.42</td>
<td>.43</td>
<td>.60</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Task Impact</td>
<td>.33</td>
<td>-.30</td>
<td>.23</td>
<td>.41</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Others competence</td>
<td>-.48</td>
<td>.48</td>
<td>.47</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Others shortcomings</td>
<td>-.45</td>
<td>.38</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Social support</td>
<td>.33</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Organizational</td>
<td>...</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note: Correlation coefficients above 0.50 are underlined.*

Table 11.
Pearson’s correlation coefficient matrix for Job variables.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Job Self-Efficacy</td>
<td>...</td>
<td>.35</td>
<td>.20</td>
<td>.09</td>
<td>.06</td>
<td>.25</td>
<td>.01</td>
</tr>
<tr>
<td>2. Job Meaningfulness</td>
<td>.33</td>
<td>.26</td>
<td>.27</td>
<td>.26</td>
<td>.37</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Job Choice</td>
<td>.54</td>
<td>.27</td>
<td>.45</td>
<td>.35</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Job Impact</td>
<td>.39</td>
<td>.48</td>
<td>.49</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Alignment</td>
<td>.36</td>
<td>.47</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Resource Access</td>
<td>.52</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Opportunity</td>
<td>...</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note: Correlation coefficients above 0.50 are underlined.*

Table 12.
Degrees of freedom for hierarchical multiple regression analyses of task outcomes.

<table>
<thead>
<tr>
<th>Step</th>
<th>Predictors</th>
<th>Degrees of freedom</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Regression</td>
</tr>
<tr>
<td>1</td>
<td>Control variables</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>Organizational interventions</td>
<td>20</td>
</tr>
<tr>
<td>3</td>
<td>Qualifiers of interventions</td>
<td>24</td>
</tr>
<tr>
<td>4</td>
<td>Task-self assessments</td>
<td>28</td>
</tr>
<tr>
<td>5</td>
<td>Context-self assessments</td>
<td>32</td>
</tr>
</tbody>
</table>
Hypothesis 1 proposed that employees’ task outcomes are predicted by employees’ task-self assessments. Attending to the significance of $R$-square change of task-self variables in Table 13 (Step 4), this hypothesis was supported for all outcomes. Significance of beta weights presented in Table 14 showed that among task-self assessments, only task self-efficacy and task meaningfulness had a significant role in predicting outcomes.

Hypothesis 2 proposed that in the prediction of employees’ task outcomes, employees’ context-self assessments accounts for additional variance to the variance accounted by task-self assessments. Looking at the significance of $R$-square change of context-self variables in Table 13 (Step 5), Hypothesis 2 was supported for positive and negative mood but not for task extrinsic involvement, task intrinsic involvement, nor task performance. Table 14 shows that beta weights for those two significant cases were significant only for social support and others’ shortcomings. In summary, Hypothesis 2 was only partially supported.

**Results for Job Variables**

Hierarchical multiple regression (HMR) analyses were also used to test Hypotheses 3 and 4 as depicted in Tables 15, 16 and 17. A regression was run for each of the Job Outcomes (Job Satisfaction, Organizational Commitment, Organizational Aversion, Extra-Role Behaviors, Department Remain Intentions and Organization Remain Intentions). Steps 1, 2 and 3 entered the same variables that were entered in HMRs for Task variables in the previous section. Steps 4 entered the variables relevant to Hypothesis 3 (Job-Self Assessments: Job Self-Efficacy, Job Meaningfulness, Job Choice, and Job Impact). Finally, Step 5 entered variables relevant to Hypothesis 4 (Organization-Self Assessments: Opportunity, Alignment, and Resource Access).
### Table 13.
Results of regression analyses for task outcome variables presented by steps.

<table>
<thead>
<tr>
<th>Step</th>
<th>Predictor Variables</th>
<th>$R$</th>
<th>$R^2$</th>
<th>$Adj R^2$</th>
<th>$p Adj R^2$</th>
<th>$R^2 Ch.$</th>
<th>$p R^2 Ch.$</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Extrinsic Task Involvement</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Control</td>
<td>0.28</td>
<td>0.08</td>
<td>0.06</td>
<td>** 0.010 ***</td>
<td>0.08</td>
<td>** 0.010 ***</td>
</tr>
<tr>
<td>2</td>
<td>Interventions</td>
<td>0.40</td>
<td>0.16</td>
<td>0.08</td>
<td>* 0.070 **</td>
<td>0.08</td>
<td>0.1930</td>
</tr>
<tr>
<td>3</td>
<td>Qualifiers</td>
<td>0.42</td>
<td>0.18</td>
<td>0.09</td>
<td>** 0.070 **</td>
<td>0.02</td>
<td>0.2340</td>
</tr>
<tr>
<td>4</td>
<td>Task-Self</td>
<td>0.66</td>
<td>0.43</td>
<td>0.35</td>
<td>*** 0.000 ***</td>
<td>0.25</td>
<td>*** 0.000 ***</td>
</tr>
<tr>
<td>5</td>
<td>Context-Self</td>
<td>0.67</td>
<td>0.44</td>
<td>0.36</td>
<td>*** 0.000 ***</td>
<td>0.01</td>
<td>0.2720</td>
</tr>
<tr>
<td></td>
<td>Intrinsic Task Involvement</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Control</td>
<td>0.18</td>
<td>0.03</td>
<td>0.01</td>
<td>0.1210</td>
<td>0.03</td>
<td>0.1210</td>
</tr>
<tr>
<td>2</td>
<td>Interventions</td>
<td>0.37</td>
<td>0.14</td>
<td>0.06</td>
<td>* 0.0300</td>
<td>0.11</td>
<td>0.0510</td>
</tr>
<tr>
<td>3</td>
<td>Qualifiers</td>
<td>0.42</td>
<td>0.18</td>
<td>0.09</td>
<td>** 0.070 **</td>
<td>0.04</td>
<td>0.0310 *</td>
</tr>
<tr>
<td>4</td>
<td>Task-Self</td>
<td>0.57</td>
<td>0.33</td>
<td>0.23</td>
<td>*** 0.000 ***</td>
<td>0.15</td>
<td>*** 0.000 ***</td>
</tr>
<tr>
<td>5</td>
<td>Context-Self</td>
<td>0.59</td>
<td>0.35</td>
<td>0.24</td>
<td>*** 0.000 ***</td>
<td>0.02</td>
<td>0.7290</td>
</tr>
<tr>
<td></td>
<td>Task Performance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Control</td>
<td>0.12</td>
<td>0.01</td>
<td>0.00</td>
<td>0.4800</td>
<td>0.01</td>
<td>0.4800</td>
</tr>
<tr>
<td>2</td>
<td>Interventions</td>
<td>0.34</td>
<td>0.12</td>
<td>0.03</td>
<td>0.1190</td>
<td>0.10</td>
<td>0.0890</td>
</tr>
<tr>
<td>3</td>
<td>Qualifiers</td>
<td>0.43</td>
<td>0.19</td>
<td>0.09</td>
<td>** 0.040 **</td>
<td>0.07</td>
<td>0.0010 ***</td>
</tr>
<tr>
<td>4</td>
<td>Task-Self</td>
<td>0.60</td>
<td>0.36</td>
<td>0.28</td>
<td>*** 0.000 ***</td>
<td>0.18</td>
<td>*** 0.000 ***</td>
</tr>
<tr>
<td>5</td>
<td>Context-Self</td>
<td>0.61</td>
<td>0.37</td>
<td>0.27</td>
<td>*** 0.000 ***</td>
<td>0.01</td>
<td>0.7290</td>
</tr>
<tr>
<td></td>
<td>Positive Mood</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Control</td>
<td>0.23</td>
<td>0.05</td>
<td>0.04</td>
<td>* 0.0140</td>
<td>0.05</td>
<td>0.0140 *</td>
</tr>
<tr>
<td>2</td>
<td>Interventions</td>
<td>0.50</td>
<td>0.25</td>
<td>0.18</td>
<td>*** 0.000 ***</td>
<td>0.19</td>
<td>*** 0.000 ***</td>
</tr>
<tr>
<td>3</td>
<td>Qualifiers</td>
<td>0.54</td>
<td>0.29</td>
<td>0.21</td>
<td>*** 0.000 ***</td>
<td>0.04</td>
<td>0.0150 *</td>
</tr>
<tr>
<td>4</td>
<td>Task-Self</td>
<td>0.68</td>
<td>0.46</td>
<td>0.39</td>
<td>*** 0.000 ***</td>
<td>0.17</td>
<td>*** 0.000 ***</td>
</tr>
<tr>
<td>5</td>
<td>Context-Self</td>
<td>0.70</td>
<td>0.49</td>
<td>0.41</td>
<td>*** 0.000 ***</td>
<td>0.03</td>
<td>0.0220 *</td>
</tr>
<tr>
<td></td>
<td>Negative Mood</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Control</td>
<td>0.11</td>
<td>0.01</td>
<td>0.00</td>
<td>0.5560</td>
<td>0.01</td>
<td>0.5560</td>
</tr>
<tr>
<td>2</td>
<td>Interventions</td>
<td>0.30</td>
<td>0.09</td>
<td>0.01</td>
<td>0.3680</td>
<td>0.08</td>
<td>0.2990</td>
</tr>
<tr>
<td>3</td>
<td>Qualifiers</td>
<td>0.33</td>
<td>0.11</td>
<td>0.01</td>
<td>0.3290</td>
<td>0.02</td>
<td>0.2940</td>
</tr>
<tr>
<td>4</td>
<td>Task-Self</td>
<td>0.45</td>
<td>0.20</td>
<td>0.09</td>
<td>** 0.0070 ***</td>
<td>0.09</td>
<td>*** 0.000 ***</td>
</tr>
<tr>
<td>5</td>
<td>Context-Self</td>
<td>0.51</td>
<td>0.26</td>
<td>0.15</td>
<td>*** 0.000 ***</td>
<td>0.06</td>
<td>** 0.0020 ***</td>
</tr>
</tbody>
</table>

**Note:**
- $R$ = Multiple correlation coefficient; $R^2$ = Coefficient of Determination;
- $Adj R^2$ = Adjusted coefficient of determination,
- $p Adj R^2$ = Probability of the adjusted coefficient of determination,
- $R^2 Ch.$ = Change in the coefficient of determination;
- $p R^2 Ch.$ = Significance of the change of the coefficient of determination;
- * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$. 
Table 14.
Beta weights for predictors of task outcomes in hierarchical regression analyses.

<table>
<thead>
<tr>
<th>Task Outcomes (Criterion Variables)</th>
<th>TINPRIDE</th>
<th>TINCOMM</th>
<th>PERFORMA</th>
<th>POSIMOOD</th>
<th>NEGAMOOD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step 1: Control Variables</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>-0.01</td>
<td>0.01</td>
<td>0.07</td>
<td>-0.08</td>
<td>0.21</td>
</tr>
<tr>
<td>Study Level</td>
<td>0.10</td>
<td>0.10</td>
<td>0.05</td>
<td>0.11</td>
<td>-0.10</td>
</tr>
<tr>
<td>Position tenure</td>
<td>-0.02</td>
<td>0.04</td>
<td>-0.05</td>
<td>-0.05</td>
<td>-0.11</td>
</tr>
<tr>
<td>Tenure in organization</td>
<td>0.11</td>
<td>-0.02</td>
<td>0.06</td>
<td>0.10</td>
<td>-0.02</td>
</tr>
<tr>
<td><strong>Step 2: Empowering Interventions</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TQM, cont. improve</td>
<td>0.12</td>
<td>0.06</td>
<td>0.12</td>
<td>0.17</td>
<td>-0.03</td>
</tr>
<tr>
<td>JIT, kanban</td>
<td>-0.05</td>
<td>0.03</td>
<td>-0.06</td>
<td>0.02</td>
<td>-0.02</td>
</tr>
<tr>
<td>ISO9000 certification</td>
<td>-0.10</td>
<td>-0.01</td>
<td>0.05</td>
<td>-0.13</td>
<td>-0.03</td>
</tr>
<tr>
<td>Flexible manufact.</td>
<td>0.01</td>
<td>-0.02</td>
<td>-0.04</td>
<td>-0.06</td>
<td>0.14</td>
</tr>
<tr>
<td>Multifunctional teams</td>
<td>-0.03</td>
<td>0.03</td>
<td>-0.10</td>
<td>0.00</td>
<td>0.07</td>
</tr>
<tr>
<td>Reengineering</td>
<td>-0.06</td>
<td>-0.02</td>
<td>0.02</td>
<td>0.14</td>
<td>0.12</td>
</tr>
<tr>
<td>Excellence leadership</td>
<td>0.01</td>
<td>0.03</td>
<td>0.00</td>
<td>0.13</td>
<td>0.00</td>
</tr>
<tr>
<td>Particip. leadership</td>
<td>0.02</td>
<td>0.12</td>
<td>0.12</td>
<td>0.11</td>
<td>-0.18</td>
</tr>
<tr>
<td>Manag. by objectives</td>
<td>-0.07</td>
<td>-0.06</td>
<td>-0.06</td>
<td>-0.13</td>
<td>0.00</td>
</tr>
<tr>
<td>360 degrees feedback</td>
<td>-0.06</td>
<td>-0.10</td>
<td>-0.11</td>
<td>-0.13</td>
<td>-0.01</td>
</tr>
<tr>
<td>Excellence programs</td>
<td>0.12</td>
<td>0.05</td>
<td>0.16</td>
<td>-0.03</td>
<td>-0.03</td>
</tr>
<tr>
<td>Self directed teams</td>
<td>0.11</td>
<td>0.01</td>
<td>0.01</td>
<td>0.04</td>
<td>-0.05</td>
</tr>
<tr>
<td>Matrix organization</td>
<td>0.03</td>
<td>-0.02</td>
<td>0.00</td>
<td>0.05</td>
<td>-0.05</td>
</tr>
<tr>
<td>Quality of working life</td>
<td>-0.04</td>
<td>-0.18</td>
<td>-0.09</td>
<td>-0.17</td>
<td>0.10</td>
</tr>
<tr>
<td>Training</td>
<td>-0.07</td>
<td>0.09</td>
<td>0.02</td>
<td>-0.05</td>
<td>0.06</td>
</tr>
<tr>
<td>Other</td>
<td>0.00</td>
<td>-0.10</td>
<td>-0.10</td>
<td>-0.19</td>
<td>-0.07</td>
</tr>
<tr>
<td><strong>Step 3: Qualifiers of Interventions</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time implemented</td>
<td>0.04</td>
<td>-0.01</td>
<td>-0.03</td>
<td>0.07</td>
<td>-0.03</td>
</tr>
<tr>
<td>Managerial commitment</td>
<td>-0.06</td>
<td>0.12</td>
<td>0.13</td>
<td>0.13</td>
<td>0.08</td>
</tr>
<tr>
<td>Organization good</td>
<td>0.06</td>
<td>-0.22</td>
<td>-0.19</td>
<td>-0.22</td>
<td>-0.05</td>
</tr>
<tr>
<td>People good</td>
<td>0.09</td>
<td>0.19</td>
<td>0.28</td>
<td>0.20</td>
<td>-0.07</td>
</tr>
<tr>
<td><strong>Step 4: Task-Self Variables</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task Self-Efficacy</td>
<td>0.23</td>
<td>-0.04</td>
<td>0.45</td>
<td>-0.14</td>
<td>-0.01</td>
</tr>
<tr>
<td>Task Meaningfulness</td>
<td>0.40</td>
<td>0.31</td>
<td>0.02</td>
<td>0.41</td>
<td>-0.06</td>
</tr>
<tr>
<td>Task Choice</td>
<td>0.06</td>
<td>0.10</td>
<td>-0.02</td>
<td>0.03</td>
<td>-0.02</td>
</tr>
<tr>
<td>Task Impact</td>
<td>0.04</td>
<td>0.14</td>
<td>-0.02</td>
<td>0.03</td>
<td>-0.12</td>
</tr>
<tr>
<td><strong>Step 5: Context-Self Variables</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others' Competence</td>
<td>0.06</td>
<td>0.11</td>
<td>0.08</td>
<td>0.09</td>
<td>-0.10</td>
</tr>
<tr>
<td>Others' Shortcomings</td>
<td>0.15</td>
<td>0.16</td>
<td>0.02</td>
<td>0.02</td>
<td>0.16</td>
</tr>
<tr>
<td>Social Support</td>
<td>0.05</td>
<td>0.07</td>
<td>0.02</td>
<td>0.15</td>
<td>-0.10</td>
</tr>
<tr>
<td>Organizational Support</td>
<td>0.00</td>
<td>0.04</td>
<td>-0.08</td>
<td>0.06</td>
<td>-0.09</td>
</tr>
</tbody>
</table>

*Note: TINPRIDE & TINCOMM = Task Involvement: Extrinsic & Intrinsic; PERFORMA = Task Performance; POSIMOOD & NEGAMOOD = Positive & Negative Mood; * p < 0.05, ** p < .01, *** p < .001*
Table 15 gives the degrees of freedom for the regressions and the residuals in each of the steps. Table 16 contains coefficients of determination ($R^2$) and changes in the coefficient of determination ($R^2$ ch) as additional sets of variables are introduced at each step. Finally, Table 17 presents beta weights and significance levels for diverse predictors of task outcomes.

Hypothesis 3 proposed that employees' job outcomes were predicted by employees' job-self assessments. $R$-square changes for job-self variables in Table 16 shows significant values for all of the criterion variables except for Extra-Role Behavior, implying good support for the hypothesis. Beta weights presented in Table 17 showed that the main role in predicting job outcomes among job-self variables was played by Job Meaningfulness. Job Choice and Job Self-Efficacy had a secondary role.

Hypothesis 4 proposed that in the prediction of employees' job outcomes, employees' organization-self assessments would account for additional variance to the variance accounted by job-self assessments. Table 16 showed that increases in $R^2$-square for organization-self variables were significant in all cases except for Extra Role Behavior, supporting this hypothesis. Table 17 showed that among organization-self variables, Opportunity played the main role and Alignment a secondary role.

### Table 15.
Degrees of freedom for hierarchical multiple regression analyses of job outcomes.

<table>
<thead>
<tr>
<th>Step</th>
<th>Predictors</th>
<th>Degrees of freedom</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Regression</td>
<td>Residual</td>
</tr>
<tr>
<td>1</td>
<td>Control variables</td>
<td>4</td>
<td>233</td>
</tr>
<tr>
<td>2</td>
<td>Organizational interventions</td>
<td>20</td>
<td>217</td>
</tr>
<tr>
<td>3</td>
<td>Qualifiers of interventions</td>
<td>24</td>
<td>213</td>
</tr>
<tr>
<td>4</td>
<td>Task-self assessments</td>
<td>28</td>
<td>209</td>
</tr>
<tr>
<td>5</td>
<td>Context-self assessments</td>
<td>31</td>
<td>206</td>
</tr>
</tbody>
</table>
Table 16. Results of hierarchical regression analyses for job outcome variables by steps.

<table>
<thead>
<tr>
<th>Step</th>
<th>Predictor Variables</th>
<th>R</th>
<th>R²</th>
<th>Adj R²</th>
<th>p Adj R²</th>
<th>R² Ch.</th>
<th>p R² Ch.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Job Satisfaction</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Control</td>
<td>0.15</td>
<td>0.02</td>
<td>0.01</td>
<td>.2650</td>
<td>0.02</td>
<td>.2650</td>
</tr>
<tr>
<td>2</td>
<td>Interventions</td>
<td>0.37</td>
<td>0.13</td>
<td>0.05</td>
<td>.0370*</td>
<td>0.11</td>
<td>.0380*</td>
</tr>
<tr>
<td>3</td>
<td>Qualifiers</td>
<td>0.43</td>
<td>0.18</td>
<td>0.09</td>
<td>.0060**</td>
<td>0.05</td>
<td>.0170**</td>
</tr>
<tr>
<td>4</td>
<td>Job-Self</td>
<td>0.68</td>
<td>0.46</td>
<td>0.39</td>
<td>.0000***</td>
<td>0.28</td>
<td>.0000***</td>
</tr>
<tr>
<td>5</td>
<td>Organization-Self</td>
<td>0.76</td>
<td>0.58</td>
<td>0.52</td>
<td>.0000***</td>
<td>0.12</td>
<td>.0000***</td>
</tr>
<tr>
<td></td>
<td>Organization Commitment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Control</td>
<td>0.12</td>
<td>0.02</td>
<td>0.00</td>
<td>.4640</td>
<td>0.02</td>
<td>.4640</td>
</tr>
<tr>
<td>2</td>
<td>Interventions</td>
<td>0.48</td>
<td>0.23</td>
<td>0.16</td>
<td>.0000***</td>
<td>0.22</td>
<td>.0000***</td>
</tr>
<tr>
<td>3</td>
<td>Qualifiers</td>
<td>0.50</td>
<td>0.25</td>
<td>0.16</td>
<td>.0000***</td>
<td>0.02</td>
<td>.3380</td>
</tr>
<tr>
<td>4</td>
<td>Job-Self</td>
<td>0.58</td>
<td>0.33</td>
<td>0.24</td>
<td>.0000***</td>
<td>0.09</td>
<td>.0000***</td>
</tr>
<tr>
<td>5</td>
<td>Organization-Self</td>
<td>0.67</td>
<td>0.45</td>
<td>0.36</td>
<td>.0000***</td>
<td>0.11</td>
<td>.0000***</td>
</tr>
<tr>
<td></td>
<td>Organizational Aversion</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Control</td>
<td>0.10</td>
<td>0.01</td>
<td>-0.01</td>
<td>.6580</td>
<td>0.01</td>
<td>.6580</td>
</tr>
<tr>
<td>2</td>
<td>Interventions</td>
<td>0.39</td>
<td>0.15</td>
<td>0.07</td>
<td>.0120*</td>
<td>0.14</td>
<td>.0050**</td>
</tr>
<tr>
<td>3</td>
<td>Qualifiers</td>
<td>0.42</td>
<td>0.18</td>
<td>0.08</td>
<td>.0080**</td>
<td>0.03</td>
<td>.1570</td>
</tr>
<tr>
<td>4</td>
<td>Job-Self</td>
<td>0.54</td>
<td>0.30</td>
<td>0.20</td>
<td>.0000***</td>
<td>0.12</td>
<td>.0000***</td>
</tr>
<tr>
<td>5</td>
<td>Organization-Self</td>
<td>0.60</td>
<td>0.36</td>
<td>0.26</td>
<td>.0000***</td>
<td>0.06</td>
<td>.0000***</td>
</tr>
<tr>
<td></td>
<td>Extra-Role Behavior</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Control</td>
<td>0.16</td>
<td>0.02</td>
<td>0.01</td>
<td>.2180</td>
<td>0.02</td>
<td>.2180</td>
</tr>
<tr>
<td>2</td>
<td>Interventions</td>
<td>0.26</td>
<td>0.07</td>
<td>-0.02</td>
<td>.7100</td>
<td>0.04</td>
<td>.8420</td>
</tr>
<tr>
<td>3</td>
<td>Qualifiers</td>
<td>0.28</td>
<td>0.08</td>
<td>-0.02</td>
<td>.7590</td>
<td>0.01</td>
<td>.5940</td>
</tr>
<tr>
<td>4</td>
<td>Job-Self</td>
<td>0.32</td>
<td>0.10</td>
<td>-0.02</td>
<td>.6660</td>
<td>0.02</td>
<td>.2580</td>
</tr>
<tr>
<td>5</td>
<td>Organization-Self</td>
<td>0.33</td>
<td>0.11</td>
<td>-0.03</td>
<td>.7530</td>
<td>0.00</td>
<td>.7670</td>
</tr>
<tr>
<td></td>
<td>Organization Remain-Withdrawal Intentions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Control</td>
<td>0.20</td>
<td>0.04</td>
<td>0.02</td>
<td>.0570</td>
<td>0.04</td>
<td>.0570</td>
</tr>
<tr>
<td>2</td>
<td>Interventions</td>
<td>0.37</td>
<td>0.14</td>
<td>0.06</td>
<td>.0270*</td>
<td>0.10</td>
<td>.0730</td>
</tr>
<tr>
<td>3</td>
<td>Qualifiers</td>
<td>0.39</td>
<td>0.15</td>
<td>0.06</td>
<td>.0490*</td>
<td>0.01</td>
<td>.5910</td>
</tr>
<tr>
<td>4</td>
<td>Job-Self</td>
<td>0.54</td>
<td>0.29</td>
<td>0.19</td>
<td>.0000***</td>
<td>0.14</td>
<td>.0000***</td>
</tr>
<tr>
<td>5</td>
<td>Organization-Self</td>
<td>0.71</td>
<td>0.50</td>
<td>0.42</td>
<td>.0000***</td>
<td>0.21</td>
<td>.0000***</td>
</tr>
<tr>
<td></td>
<td>Department Remain-Withdrawal Intentions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Control</td>
<td>0.09</td>
<td>0.01</td>
<td>-0.01</td>
<td>.7570</td>
<td>0.01</td>
<td>.7570</td>
</tr>
<tr>
<td>2</td>
<td>Interventions</td>
<td>0.32</td>
<td>0.10</td>
<td>0.02</td>
<td>.2120</td>
<td>0.10</td>
<td>.1220</td>
</tr>
<tr>
<td>3</td>
<td>Qualifiers</td>
<td>0.36</td>
<td>0.13</td>
<td>0.03</td>
<td>.1510</td>
<td>0.03</td>
<td>.1770</td>
</tr>
<tr>
<td>4</td>
<td>Job-Self</td>
<td>0.49</td>
<td>0.24</td>
<td>0.14</td>
<td>.0000***</td>
<td>0.11</td>
<td>.0000***</td>
</tr>
<tr>
<td>5</td>
<td>Organization-Self</td>
<td>0.60</td>
<td>0.36</td>
<td>0.26</td>
<td>.0000***</td>
<td>0.12</td>
<td>.0000***</td>
</tr>
</tbody>
</table>

Note: R = Multiple correlation coefficient; R² = Coefficient of Determination; Adj R² = Adjusted coefficient of determination; p Adj R² = Probability of the adjusted coefficient of determination; R² Ch. = Change in the coefficient of determination; p R² Ch. = Significance of the change of the coefficient of determination; * p < 0.05; ** p < 0.01; *** p < 0.001.
Table 17.
Beta weights for predictors of job outcomes in hierarchical regression analyses.

<table>
<thead>
<tr>
<th>Job Outcomes (Criterion Variables)</th>
<th>JSATISFA</th>
<th>ORCOMMIT</th>
<th>OAVERSIO</th>
<th>EXTROLBE</th>
<th>ORWITHDR</th>
<th>DPWITHDR</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step 1: Control Variables</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>0.07</td>
<td>0.05</td>
<td>0.00</td>
<td>0.22 *</td>
<td>0.12</td>
<td>0.02</td>
</tr>
<tr>
<td>Study Level</td>
<td>0.02</td>
<td>-0.05</td>
<td>0.13 *</td>
<td>-0.05</td>
<td>-0.07</td>
<td>-0.07</td>
</tr>
<tr>
<td>Position tenure</td>
<td>0.00</td>
<td>0.04</td>
<td>-0.09</td>
<td>0.09</td>
<td>0.08</td>
<td>0.03</td>
</tr>
<tr>
<td>Tenure in organization</td>
<td>-0.10</td>
<td>0.07</td>
<td>0.02</td>
<td>-0.27 *</td>
<td>-0.05</td>
<td>-0.11</td>
</tr>
<tr>
<td><strong>Step 2: Empowering Interventions</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TQM, cont. improve</td>
<td>0.09</td>
<td>-0.06</td>
<td>0.15 *</td>
<td>0.16</td>
<td>-0.08</td>
<td>-0.08</td>
</tr>
<tr>
<td>JIT, kanban</td>
<td>-0.04</td>
<td>-0.03</td>
<td>-0.06</td>
<td>-0.05</td>
<td>0.00</td>
<td>-0.04</td>
</tr>
<tr>
<td>ISO9000 certification</td>
<td>0.01</td>
<td>0.18 *</td>
<td>-0.10</td>
<td>0.01</td>
<td>0.05</td>
<td>0.00</td>
</tr>
<tr>
<td>Flexible manufact.</td>
<td>-0.10 *</td>
<td>0.09</td>
<td>0.04</td>
<td>0.02</td>
<td>-0.05</td>
<td>0.02</td>
</tr>
<tr>
<td>Multifunctional teams</td>
<td>-0.05</td>
<td>-0.06</td>
<td>-0.02</td>
<td>0.05</td>
<td>-0.06</td>
<td>0.05</td>
</tr>
<tr>
<td>Reengineering</td>
<td>0.10</td>
<td>0.08</td>
<td>-0.03</td>
<td>0.06</td>
<td>0.00</td>
<td>-0.16 *</td>
</tr>
<tr>
<td>Excellence leadership</td>
<td>-0.02</td>
<td>0.03</td>
<td>-0.05</td>
<td>-0.07</td>
<td>-0.01</td>
<td>-0.04</td>
</tr>
<tr>
<td>Particip. leadership</td>
<td>-0.03</td>
<td>0.05</td>
<td>0.00</td>
<td>-0.03</td>
<td>0.05</td>
<td>0.04</td>
</tr>
<tr>
<td>Manag. by objectives</td>
<td>-0.03</td>
<td>-0.07</td>
<td>0.09</td>
<td>0.09</td>
<td>-0.03</td>
<td>-0.01</td>
</tr>
<tr>
<td>360 degrees feedback</td>
<td>-0.02</td>
<td>0.01</td>
<td>-0.04</td>
<td>-0.04</td>
<td>-0.04</td>
<td>-0.07</td>
</tr>
<tr>
<td>Excellence programs</td>
<td>-0.02</td>
<td>0.10</td>
<td>-0.09</td>
<td>-0.02</td>
<td>0.11</td>
<td>0.06</td>
</tr>
<tr>
<td>Self directed teams</td>
<td>0.00</td>
<td>0.05</td>
<td>0.05</td>
<td>-0.03</td>
<td>-0.03</td>
<td>-0.11</td>
</tr>
<tr>
<td>Matrix organization</td>
<td>0.06</td>
<td>-0.07</td>
<td>0.01</td>
<td>0.04</td>
<td>0.02</td>
<td>-0.09</td>
</tr>
<tr>
<td>Quality of working life</td>
<td>0.02</td>
<td>0.13</td>
<td>-0.13</td>
<td>-0.02</td>
<td>0.06</td>
<td>0.03</td>
</tr>
<tr>
<td>Training</td>
<td>0.03</td>
<td>-0.01</td>
<td>-0.05</td>
<td>-0.03</td>
<td>0.01</td>
<td>0.11</td>
</tr>
<tr>
<td>Other</td>
<td>-0.08</td>
<td>-0.16 **</td>
<td>0.09</td>
<td>0.06</td>
<td>-0.05</td>
<td>-0.08</td>
</tr>
<tr>
<td><strong>Step 3: Qualifiers of Interventions</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time implemented</td>
<td>0.04</td>
<td>-0.02</td>
<td>-0.02</td>
<td>-0.07</td>
<td>-0.04</td>
<td>0.04</td>
</tr>
<tr>
<td>Managerial commitment</td>
<td>-0.04</td>
<td>-0.01</td>
<td>-0.13</td>
<td>0.13</td>
<td>0.09</td>
<td>0.15</td>
</tr>
<tr>
<td>Organization good</td>
<td>0.02</td>
<td>0.10</td>
<td>-0.02</td>
<td>-0.10</td>
<td>-0.09</td>
<td>-0.07</td>
</tr>
<tr>
<td>People good</td>
<td>0.01</td>
<td>-0.07</td>
<td>0.19</td>
<td>0.01</td>
<td>-0.68</td>
<td>-0.06</td>
</tr>
<tr>
<td><strong>Step 4: Job-Self Variables</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Job Self-Efficacy</td>
<td>0.003</td>
<td>0.03</td>
<td>0.00</td>
<td>0.08</td>
<td>-0.15 *</td>
<td>-0.04</td>
</tr>
<tr>
<td>Job Meaningfulness</td>
<td>0.25 ***</td>
<td>0.14 *</td>
<td>-0.20 **</td>
<td>-0.14</td>
<td>0.15 *</td>
<td>0.07</td>
</tr>
<tr>
<td>Job Choice</td>
<td>0.11</td>
<td>-0.18 **</td>
<td>0.04</td>
<td>-0.02</td>
<td>0.07</td>
<td>0.19 *</td>
</tr>
<tr>
<td>Job Impact</td>
<td>0.11</td>
<td>0.12</td>
<td>-0.12</td>
<td>0.11</td>
<td>-0.08</td>
<td>-0.07</td>
</tr>
<tr>
<td><strong>Step 5: Organization-Self Variables</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Opportunity</td>
<td>0.39 ***</td>
<td>0.26 ***</td>
<td>-0.23 **</td>
<td>0.08</td>
<td>0.59 ***</td>
<td>0.42 ***</td>
</tr>
<tr>
<td>Alignment</td>
<td>0.11</td>
<td>0.27 ***</td>
<td>-0.18 *</td>
<td>-0.01</td>
<td>0.10</td>
<td>0.09</td>
</tr>
<tr>
<td>Resource Access</td>
<td>0.03</td>
<td>-0.09</td>
<td>0.04</td>
<td>0.03</td>
<td>-0.08</td>
<td>-0.04</td>
</tr>
</tbody>
</table>

Note: JSATISFA = Job Satisfaction; ORCOMMIT = Organization Commitment; OAVERSIO = Organizational Aversion; EXTROLBE = Extra-Role Behavior; ORWITHDR = Organization Remain-Withdrawal Intentions; DPWITHDR = Department Remain-Withdrawal Intentions; * p < 0.05, ** p < .01, *** p < .001
Results for the Relationship between Task Assessments and Job Assessments

Hypothesis 5 proposed that employees’ task outcomes are better predicted by employees’ task assessments than by job assessments. Two hierarchical multiple regression (HMR) analyses were run for each of the task outcomes. As in previous HMRs, control variables were entered first for each pair of HMRs. Then, assessments were entered in two orderings: task assessments first and job assessments second for one regression, and job assessments first and task assessments second for the other regression. In each case, the first assessments entering worked as another set of control variables. R-square change due to assessments entered in the last step was observed. Degrees of freedom for the regression were 39 and for the residual 198.

Table 18 presents R-square changes for each pair of equations generated for job outcomes, and the necessary transformations to R-changes and Fisher-z values to compute $d$, and its significance level. Null hypothesis proposing that multiple regression coefficients are equal was rejected only for negative mood. However, both outcomes in task involvement showed a trend toward the 0.05 level of significance. Thus, Hypothesis 5 was only partially supported.

Hypothesis 6 proposed that employees’ job outcomes would be better predicted by employees’ job assessments than by task assessments. A similar procedure to the one used to test Hypothesis 5 was used to test this hypothesis. Degrees of freedom for the regression were 39 and for the residual 198. Table 19 shows that null hypothesis was rejected for organizational commitment and for organization remain-withdrawal intentions. A trend toward significance was found for department remain-withdrawal intentions. Thus, Hypothesis 6 was only partially supported.
Table 18.
Significance of the difference on the multiple coefficient of determination changes for task vs. job assessments in the prediction of task-outcomes.

<table>
<thead>
<tr>
<th>Predictors</th>
<th>$R^2$ Change</th>
<th>$R$ Change</th>
<th>Fisher-z</th>
<th>$d$</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Positive Mood</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task Assessments</td>
<td>0.095</td>
<td>0.308</td>
<td>0.318</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Job Assessments</td>
<td>0.049</td>
<td>0.221</td>
<td>0.224</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Difference</td>
<td>0.049</td>
<td>0.087</td>
<td>0.094</td>
<td>1.02</td>
<td>ns</td>
</tr>
<tr>
<td><strong>Negative Mood</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task Assessments</td>
<td>0.081</td>
<td>0.284</td>
<td>0.292</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Job Assessments</td>
<td>0.017</td>
<td>0.130</td>
<td>0.131</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Difference</td>
<td>0.064</td>
<td>0.154</td>
<td>0.161</td>
<td>1.75</td>
<td>*</td>
</tr>
<tr>
<td><strong>Task Extrinsic Involvement</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task Assessments</td>
<td>0.117</td>
<td>0.342</td>
<td>0.356</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Job Assessments</td>
<td>0.049</td>
<td>0.220</td>
<td>0.224</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Difference</td>
<td>0.068</td>
<td>0.122</td>
<td>0.133</td>
<td>1.44</td>
<td>‡</td>
</tr>
<tr>
<td><strong>Task Intrinsic Involvement</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task Assessments</td>
<td>0.081</td>
<td>0.285</td>
<td>0.293</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Job Assessments</td>
<td>0.030</td>
<td>0.173</td>
<td>0.175</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Difference</td>
<td>0.051</td>
<td>0.112</td>
<td>0.118</td>
<td>1.28</td>
<td>‡</td>
</tr>
<tr>
<td><strong>Task Performance</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task Assessments</td>
<td>0.069</td>
<td>0.263</td>
<td>0.269</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Job Assessments</td>
<td>0.066</td>
<td>0.257</td>
<td>0.262</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Difference</td>
<td>0.006</td>
<td>0.007</td>
<td>0.07</td>
<td></td>
<td>ns</td>
</tr>
</tbody>
</table>

*Note:* $N=215$; * $p < 0.05$, ns = not significant; ‡ significance trend at $p < 0.10$
Table 19.  
Significance of the difference on the multiple coefficient of determination changes for task vs. job assessments in the prediction of job-outcomes.

<table>
<thead>
<tr>
<th>Predictors</th>
<th>$R^2$ Change</th>
<th>$R$ Change</th>
<th>Fisher-$z$</th>
<th>$d$</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Job Satisfaction</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task Assessments</td>
<td>0.069</td>
<td>0.262</td>
<td>0.268</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Job Assessments</td>
<td>0.111</td>
<td>0.333</td>
<td>0.346</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Difference</td>
<td>0.071</td>
<td>0.078</td>
<td>0.85</td>
<td>ns</td>
<td></td>
</tr>
<tr>
<td><strong>Organizational Commitment</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task Assessments</td>
<td>0.023</td>
<td>0.150</td>
<td>0.151</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Job Assessments</td>
<td>0.132</td>
<td>0.363</td>
<td>0.381</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Difference</td>
<td>0.213</td>
<td>0.229</td>
<td>2.48</td>
<td>**</td>
<td></td>
</tr>
<tr>
<td><strong>Organizational Aversion</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task Assessments</td>
<td>0.047</td>
<td>0.218</td>
<td>0.221</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Job Assessments</td>
<td>0.086</td>
<td>0.294</td>
<td>0.303</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Difference</td>
<td>0.076</td>
<td>0.081</td>
<td>0.88</td>
<td>ns</td>
<td></td>
</tr>
<tr>
<td><strong>Extra-Role Behavior</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task Assessments</td>
<td>0.038</td>
<td>0.195</td>
<td>0.198</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Job Assessments</td>
<td>0.044</td>
<td>0.210</td>
<td>0.213</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Difference</td>
<td>0.015</td>
<td>0.015</td>
<td>0.17</td>
<td>ns</td>
<td></td>
</tr>
<tr>
<td><strong>Organization Remain-Withdrawal Intentions</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task Assessments</td>
<td>0.022</td>
<td>0.147</td>
<td>0.148</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Job Assessments</td>
<td>0.191</td>
<td>0.436</td>
<td>0.468</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Difference</td>
<td>0.290</td>
<td>0.320</td>
<td>3.47</td>
<td>**</td>
<td></td>
</tr>
<tr>
<td><strong>Department Remain-Withdrawal Intentions</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task Assessments</td>
<td>0.031</td>
<td>0.175</td>
<td>0.177</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Job Assessments</td>
<td>0.084</td>
<td>0.290</td>
<td>0.298</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Difference</td>
<td>0.114</td>
<td>0.121</td>
<td>1.31</td>
<td>†</td>
<td></td>
</tr>
</tbody>
</table>

Note: N=215; * $p < 0.05$, ** $p < 0.01$; ns = not significant; † significance trend at $p<0.10$
Results for Organizational Empowering Interventions

Hypothesis 7 proposed that social, cognitive and affective assessments were better predictors of outcomes than empowering interventions were. Two hierarchical multiple regression (HMR) analyses were run for each outcome variable (39 degrees of freedom for the regression and 198 for the residual). Control variables were entered in both regressions during the first step. For the first equation, job and task assessments were entered at the second step and empowering interventions at the third. For the second equation, empowering interventions were entered at the second stage and job and task assessments at the third. Changes on the multiple coefficient of determination due to interventions and assessments were compared (see Tables 20 and 21). Multiple regression coefficients were significantly different for all but one of the outcomes, providing support for the hypothesis.

Hypothesis 8 proposed that employees in organizations implementing empowering interventions compared with employees in organizations not implementing empowering interventions presented higher levels of task assessments. Multivariate analysis of variance (MANOVA) was used to compare means of task variables between organizations implementing empowering interventions and those not doing it. (Degrees of freedom were 7 for the hypothesis and 206 for the error). Table 22 (first set of columns) shows that means were significantly different for total quality approaches, programs for ISO9000 certification, re-engineering, participative leadership and quality of working life.

Post hoc univariate analysis of variance (ANOVA) was used for interventions which showed significant differences to determine which of the variables were significantly different (see Table 23). Differences in intervention 1 (Total quality, continuous improvement approaches, zero defects, QFD) were in others’ competence, social support and organizational support. Differences in intervention 2
(Programs for ISO9000 certification) were in others’ competence and organizational support. Differences in intervention 6 (Re-engineering, process management) were in task choice and social support. Differences in intervention 8 (Participative leadership, participation in decision making, participative strategic planning) were in task choice and organizational support. Finally, differences in intervention 14 (Quality of working life) were in task self-efficacy, task choice, task impact, others’ competence, social support and organizational support. As showed in Table 23, organizational support was the variable that most frequently resulted in significant differences.

Hypothesis 9 proposed that employees in organizations implementing empowering interventions compared with employees in organizations not implementing empowering interventions would present higher levels of job assessments. MANOVA was used as above with the job variables. (Degrees of freedom were 7 for the hypothesis and 222 for the error). Results closely resembled those of Hypothesis 8, except that re-engineering had no significantly different results but management by objectives and other interventions were significantly different (see second group of columns in Table 22).

Results of post hoc ANOVAs are presented in Table 24. As depicted there, job impact and opportunity were most frequently different. Differences in intervention 1 (total quality, continuous improvement approaches, zero defects, QFD) were on job impact and resource access. Differences in intervention 3 (programs for ISO9000 certification) were on resource access. Differences in intervention 7 (excellence leadership, high performance leadership) were on job impact, resource access and opportunity. Differences in intervention 8 (participative leadership, participation in decision making, participative strategic planning) were on job impact, value alignment, resource access and opportunity. Differences in intervention 9 (management by objectives) were on job impact. Differences in intervention 14
(quality of working life) were on job self-efficacy, job impact, value alignment, and resource access. Finally, differences in intervention 14 (others) were on job autonomy and job impact.

**Table 20.**
Significance of the difference of multiple regression coefficients for interventions and assessments in the prediction of task-outcomes.

<table>
<thead>
<tr>
<th>Predictors</th>
<th>$R^2$ Change</th>
<th>$R$ Change</th>
<th>Fisher-z</th>
<th>$d$</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Positive Mood</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interventions</td>
<td>0.12</td>
<td>0.344</td>
<td>0.359</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assessments</td>
<td>0.25</td>
<td>0.499</td>
<td>0.548</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Difference</td>
<td>0.155</td>
<td>0.189</td>
<td>2.05</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Negative Mood</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interventions</td>
<td>0.07</td>
<td>0.257</td>
<td>0.263</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assessments</td>
<td>0.17</td>
<td>0.410</td>
<td>0.436</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Difference</td>
<td>0.153</td>
<td>0.173</td>
<td>1.87</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Task Extrinsic Involvement</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interventions</td>
<td>0.04</td>
<td>0.203</td>
<td>0.206</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assessments</td>
<td>0.31</td>
<td>0.559</td>
<td>0.631</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Difference</td>
<td>0.355</td>
<td>0.425</td>
<td>4.60</td>
<td>**</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Task Intrinsic Involvement</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interventions</td>
<td>0.07</td>
<td>0.258</td>
<td>0.264</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assessments</td>
<td>0.20</td>
<td>0.442</td>
<td>0.474</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Difference</td>
<td>0.183</td>
<td>0.210</td>
<td>2.28</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Task Performance</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interventions</td>
<td>0.10</td>
<td>0.316</td>
<td>0.327</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assessments</td>
<td>0.25</td>
<td>0.498</td>
<td>0.547</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Difference</td>
<td>0.183</td>
<td>0.220</td>
<td>2.39</td>
<td>**</td>
<td></td>
</tr>
</tbody>
</table>

*Note:* Assessments refer to both task and job assessments, *$p < 0.05$, **$p < 0.01$, ***$p < 0.001$
Table 21.
Significance of the difference of multiple regression coefficients for interventions and assessments in the prediction of job-outcomes

<table>
<thead>
<tr>
<th>Predictors</th>
<th>$R^2$ Change</th>
<th>$R$ Change</th>
<th>Fisher-$z$</th>
<th>$d$</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Job Satisfaction</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interventions</td>
<td>0.21</td>
<td>0.453</td>
<td>0.488</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assessments</td>
<td>0.47</td>
<td>0.683</td>
<td>0.834</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Difference</td>
<td></td>
<td>0.230</td>
<td>0.346</td>
<td>3.75</td>
<td>***</td>
</tr>
<tr>
<td></td>
<td>Organization Commitment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interventions</td>
<td>0.09</td>
<td>0.300</td>
<td>0.310</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assessments</td>
<td>0.22</td>
<td>0.470</td>
<td>0.510</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Difference</td>
<td></td>
<td>0.170</td>
<td>0.200</td>
<td>2.17</td>
<td>*</td>
</tr>
<tr>
<td></td>
<td>Organizational Aversion</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interventions</td>
<td>0.06</td>
<td>0.244</td>
<td>0.249</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assessments</td>
<td>0.23</td>
<td>0.479</td>
<td>0.522</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Difference</td>
<td></td>
<td>0.236</td>
<td>0.274</td>
<td>2.97</td>
<td>**</td>
</tr>
<tr>
<td></td>
<td>Extra-Role Behavior</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interventions</td>
<td>0.05</td>
<td>0.217</td>
<td>0.220</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assessments</td>
<td>0.07</td>
<td>0.257</td>
<td>0.263</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Difference</td>
<td></td>
<td>0.040</td>
<td>0.043</td>
<td>0.46</td>
<td>ns</td>
</tr>
<tr>
<td></td>
<td>Organization Remain-Withdrawal Intentions</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interventions</td>
<td>0.04</td>
<td>0.191</td>
<td>0.193</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assessments</td>
<td>0.37</td>
<td>0.607</td>
<td>0.705</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Difference</td>
<td></td>
<td>0.416</td>
<td>0.511</td>
<td>5.54</td>
<td>***</td>
</tr>
<tr>
<td></td>
<td>Department Remain-Withdrawal Intentions</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interventions</td>
<td>0.07</td>
<td>0.271</td>
<td>0.278</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assessments</td>
<td>0.26</td>
<td>0.508</td>
<td>0.561</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Difference</td>
<td></td>
<td>0.237</td>
<td>0.283</td>
<td>3.06</td>
<td>**</td>
</tr>
</tbody>
</table>

Note: Assessments refer to both task and job assessments,
ns = not significant, * = Significance level < 0.05,
** = Significance level < 0.01, *** = Significance level < 0.001
Table 22. Multivariate mean difference (MANOVA) between organizations implementing empowering interventions and organizations not implementing them.

| Interventions                                      | No  | Yes | Sig.  | | No  | Yes | Sig.  |
|----------------------------------------------------|-----|-----|-------| |-----|-----|-------|
| 1. Total quality, continuous improvement approaches | 72  | 142 | .003  ** | | 78  | 152 | .002  ** |
| 2. Just in time systems, kanban                     | 169 | 45  | .219  | | 183 | 47  | .513  |
| 3. Programs for ISO9000 certification              | 105 | 109 | .009  ** | | 111 | 119 | .012  * |
| 4. Flexible manufacturing systems, manufacturing cells | 176 | 38  | .844  | | 189 | 41  | .577  |
| 5. Multifunctional teams                            | 149 | 65  | .082  | | 162 | 68  | .679  |
| 6. Reengineering, process management                | 151 | 63  | .003  ** | | 164 | 66  | .112  |
| 7. Excellence leadership, high performance leadership | 127 | 89  | .299  | | 136 | 94  | .046  * |
| 8. Participative leadership, participation in d. making | 137 | 77  | .005  ** | | 149 | 81  | .001  ** |
| 9. Management by objectives                         | 141 | 73  | .387  | | 150 | 80  | .041  * |
| 10. 360 degree feedback                             | 208 | 6   | .151  | | 223 | 7   | .359  |
| 11. Excellence programs                             | 141 | 73  | .662  | | 155 | 75  | .242  |
| 12. Self directed teams                              | 168 | 46  | .561  | | 179 | 51  | .063  |
| 14. Quality of working life                         | 129 | 85  | .001  ** | | 141 | 89  | .003  ** |
| 15. Training in team work, leadership, dec. making  | 101 | 113 | .618  | | 113 | 117 | .222  |
| 16. Other programs and interventions                | 204 | 10  | .239  | | 220 | 10  | .023  * |

*Note: No/Yes = Number of organizations in which the intervention was or was not implemented; * p < 0.05, ** p < 0.01*
Table 23.
Post hoc univariate mean analyses (ANOVA) for interventions with significant differences in Task assessments.

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>Task Self-Efficacy</th>
<th>Task Meaning</th>
<th>Task Choice</th>
<th>Task Impact</th>
<th>Others' Social Compet.</th>
<th>Social Support</th>
<th>Organizational Support</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total quality, continuous improvement approaches, zero defects, QFD</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>72</td>
<td>6.46</td>
<td>6.13</td>
<td>5.31</td>
<td>4.98</td>
<td>5.43</td>
<td>5.26</td>
<td>4.91</td>
</tr>
<tr>
<td>Yes</td>
<td>142</td>
<td>6.40</td>
<td>6.02</td>
<td>5.64</td>
<td>4.93</td>
<td>5.76</td>
<td>5.68</td>
<td>5.51</td>
</tr>
<tr>
<td>Dif.</td>
<td></td>
<td>-0.06</td>
<td>-0.11</td>
<td>0.33</td>
<td>-0.05</td>
<td>0.33</td>
<td>0.42</td>
<td>0.60</td>
</tr>
<tr>
<td>p</td>
<td></td>
<td>0.51</td>
<td>0.44</td>
<td>0.05</td>
<td>0.70</td>
<td>0.03</td>
<td>0.00**</td>
<td>0.00**</td>
</tr>
<tr>
<td><strong>Programs for ISO9000 certification</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>105</td>
<td>6.37</td>
<td>6.05</td>
<td>5.41</td>
<td>5.00</td>
<td>5.47</td>
<td>5.44</td>
<td>5.00</td>
</tr>
<tr>
<td>Yes</td>
<td>109</td>
<td>6.47</td>
<td>6.06</td>
<td>5.65</td>
<td>4.89</td>
<td>5.82</td>
<td>5.62</td>
<td>5.61</td>
</tr>
<tr>
<td>Dif.</td>
<td></td>
<td>0.09</td>
<td>0.00</td>
<td>0.24</td>
<td>-0.11</td>
<td>0.35</td>
<td>0.18</td>
<td>0.61</td>
</tr>
<tr>
<td>p</td>
<td></td>
<td>0.26</td>
<td>0.98</td>
<td>0.14</td>
<td>0.42</td>
<td>0.01</td>
<td>0.16</td>
<td>0.00**</td>
</tr>
<tr>
<td><strong>Re-engineering, process management</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>151</td>
<td>6.38</td>
<td>5.98</td>
<td>5.40</td>
<td>4.96</td>
<td>5.63</td>
<td>5.42</td>
<td>5.19</td>
</tr>
<tr>
<td>Yes</td>
<td>63</td>
<td>6.51</td>
<td>6.23</td>
<td>5.84</td>
<td>4.91</td>
<td>5.68</td>
<td>5.82</td>
<td>5.58</td>
</tr>
<tr>
<td>Dif.</td>
<td></td>
<td>0.13</td>
<td>0.25</td>
<td>0.45</td>
<td>-0.06</td>
<td>0.05</td>
<td>0.41</td>
<td>0.38</td>
</tr>
<tr>
<td>p</td>
<td></td>
<td>0.15</td>
<td>0.08</td>
<td>0.01**</td>
<td>0.69</td>
<td>0.74</td>
<td>0.00**</td>
<td>0.07</td>
</tr>
<tr>
<td><strong>Participative leadership, participation in decision making, participative strategic planning.</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>137</td>
<td>6.41</td>
<td>6.04</td>
<td>5.36</td>
<td>4.92</td>
<td>5.58</td>
<td>5.45</td>
<td>5.02</td>
</tr>
<tr>
<td>Yes</td>
<td>77</td>
<td>6.44</td>
<td>6.08</td>
<td>5.84</td>
<td>5.00</td>
<td>5.77</td>
<td>5.68</td>
<td>5.81</td>
</tr>
<tr>
<td>Dif.</td>
<td></td>
<td>0.03</td>
<td>0.04</td>
<td>0.49</td>
<td>0.08</td>
<td>0.20</td>
<td>0.23</td>
<td>0.79</td>
</tr>
<tr>
<td>p</td>
<td></td>
<td>0.70</td>
<td>0.78</td>
<td>0.00**</td>
<td>0.57</td>
<td>0.18</td>
<td>0.08</td>
<td>0.00**</td>
</tr>
<tr>
<td><strong>Quality of working life</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>129</td>
<td>6.36</td>
<td>5.98</td>
<td>5.34</td>
<td>4.76</td>
<td>5.47</td>
<td>5.37</td>
<td>5.03</td>
</tr>
<tr>
<td>Yes</td>
<td>85</td>
<td>6.52</td>
<td>6.17</td>
<td>5.82</td>
<td>5.24</td>
<td>5.92</td>
<td>5.79</td>
<td>5.73</td>
</tr>
<tr>
<td>Dif.</td>
<td></td>
<td>0.17</td>
<td>0.18</td>
<td>0.48</td>
<td>0.48</td>
<td>0.45</td>
<td>0.42</td>
<td>0.70</td>
</tr>
<tr>
<td>p</td>
<td></td>
<td>0.05</td>
<td>0.17</td>
<td>0.00**</td>
<td>0.00***</td>
<td>0.00**</td>
<td>0.00***</td>
<td>0.00***</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1</td>
<td>0</td>
<td>3</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

**Note:** 
- \( n \) = Number of cases; \( \text{No} \) = Intervention non implemented; \( \text{Yes} \) = Intervention implemented; \( \text{Dif.} \) = Difference of means; \( p \) = Probability; 
- \( \text{Total} \) = Number of times the variable was significantly different; 
- \(* p < 0.05; ** p < 0.01, *** p < 0.001\)
Table 24.
Post hoc univariate analyses (ANOVA) for interventions in Job assessments.

<table>
<thead>
<tr>
<th>n</th>
<th>Job Self-Efficacy</th>
<th>Job Meaningful</th>
<th>Job Choice</th>
<th>Job Impact</th>
<th>Alignment</th>
<th>Resource Access</th>
<th>Opportunity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total quality, continuous improvement approaches, zero defects, QFD</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>78</td>
<td>6.66</td>
<td>5.67</td>
<td>5.23</td>
<td>5.78</td>
<td>5.32</td>
<td>5.07</td>
</tr>
<tr>
<td>Yes</td>
<td>152</td>
<td>6.63</td>
<td>5.85</td>
<td>5.52</td>
<td>6.00</td>
<td>5.83</td>
<td>5.30</td>
</tr>
<tr>
<td>Diff</td>
<td>-0.13</td>
<td>-0.03</td>
<td>0.18</td>
<td>0.29</td>
<td>0.22</td>
<td>0.51</td>
<td>0.23</td>
</tr>
<tr>
<td>p</td>
<td>.075</td>
<td>.703</td>
<td>.168</td>
<td>.050 *</td>
<td>.096</td>
<td>.000 ***</td>
<td>.226</td>
</tr>
<tr>
<td>Programs for ISO9000 certification</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>111</td>
<td>6.62</td>
<td>5.71</td>
<td>5.29</td>
<td>5.82</td>
<td>5.40</td>
<td>5.14</td>
</tr>
<tr>
<td>Yes</td>
<td>119</td>
<td>6.67</td>
<td>5.86</td>
<td>5.55</td>
<td>6.03</td>
<td>5.89</td>
<td>5.31</td>
</tr>
<tr>
<td>Diff</td>
<td>-0.03</td>
<td>0.05</td>
<td>0.15</td>
<td>0.26</td>
<td>0.21</td>
<td>0.49</td>
<td>0.17</td>
</tr>
<tr>
<td>p</td>
<td>.705</td>
<td>.449</td>
<td>.213</td>
<td>.064</td>
<td>.096</td>
<td>.000 ***</td>
<td>.340</td>
</tr>
<tr>
<td>Excellence leadership, high performance leadership</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>136</td>
<td>6.66</td>
<td>5.71</td>
<td>5.25</td>
<td>5.88</td>
<td>5.54</td>
<td>5.04</td>
</tr>
<tr>
<td>Yes</td>
<td>94</td>
<td>6.61</td>
<td>5.90</td>
<td>5.67</td>
<td>6.00</td>
<td>5.82</td>
<td>5.49</td>
</tr>
<tr>
<td>Diff</td>
<td>-0.07</td>
<td>-0.05</td>
<td>0.19</td>
<td>0.41</td>
<td>0.12</td>
<td>0.29</td>
<td>0.44</td>
</tr>
<tr>
<td>p</td>
<td>.357</td>
<td>.483</td>
<td>.133</td>
<td>.004 **</td>
<td>.344</td>
<td>.040 *</td>
<td>.015 *</td>
</tr>
<tr>
<td>Participative leadership, participation in decision making, participative strategic planning</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>149</td>
<td>6.67</td>
<td>5.73</td>
<td>5.23</td>
<td>5.83</td>
<td>5.53</td>
<td>5.02</td>
</tr>
<tr>
<td>Yes</td>
<td>81</td>
<td>6.59</td>
<td>5.89</td>
<td>5.79</td>
<td>6.12</td>
<td>5.89</td>
<td>5.61</td>
</tr>
<tr>
<td>Diff</td>
<td>-0.08</td>
<td>-0.08</td>
<td>0.15</td>
<td>0.56</td>
<td>0.29</td>
<td>0.36</td>
<td>0.59</td>
</tr>
<tr>
<td>p</td>
<td>.279</td>
<td>.291</td>
<td>.237</td>
<td>.000 ***</td>
<td>.262 *</td>
<td>.012 *</td>
<td>.002 **</td>
</tr>
<tr>
<td>Management by objectives</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>150</td>
<td>6.69</td>
<td>5.72</td>
<td>5.31</td>
<td>5.92</td>
<td>5.62</td>
<td>5.29</td>
</tr>
<tr>
<td>Yes</td>
<td>80</td>
<td>6.56</td>
<td>5.91</td>
<td>5.63</td>
<td>5.94</td>
<td>5.72</td>
<td>5.10</td>
</tr>
<tr>
<td>Diff</td>
<td>-0.01</td>
<td>-0.13</td>
<td>0.19</td>
<td>0.32</td>
<td>0.02</td>
<td>0.11</td>
<td>-0.19</td>
</tr>
<tr>
<td>p</td>
<td>.847</td>
<td>.095</td>
<td>.147</td>
<td>.028 *</td>
<td>.858</td>
<td>.467</td>
<td>.314</td>
</tr>
<tr>
<td>Quality of working life</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>141</td>
<td>6.61</td>
<td>5.70</td>
<td>5.28</td>
<td>5.76</td>
<td>5.46</td>
<td>5.11</td>
</tr>
<tr>
<td>Yes</td>
<td>89</td>
<td>6.69</td>
<td>5.91</td>
<td>5.65</td>
<td>6.19</td>
<td>5.96</td>
<td>5.41</td>
</tr>
<tr>
<td>Diff</td>
<td>0.14</td>
<td>0.08</td>
<td>0.21</td>
<td>0.37</td>
<td>0.43</td>
<td>0.50</td>
<td>0.30</td>
</tr>
<tr>
<td>p</td>
<td>.046 *</td>
<td>.269</td>
<td>.099</td>
<td>.011 *</td>
<td>.001 **</td>
<td>.000 ***</td>
<td>.104</td>
</tr>
<tr>
<td>Others</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>220</td>
<td>6.65</td>
<td>5.83</td>
<td>5.45</td>
<td>5.95</td>
<td>5.67</td>
<td>5.23</td>
</tr>
<tr>
<td>Yes</td>
<td>10</td>
<td>6.70</td>
<td>4.77</td>
<td>4.74</td>
<td>5.45</td>
<td>5.42</td>
<td>5.04</td>
</tr>
<tr>
<td>Diff</td>
<td>-0.06</td>
<td>-0.04</td>
<td>-1.07</td>
<td>-0.71</td>
<td>-0.50</td>
<td>-0.25</td>
<td>-0.19</td>
</tr>
<tr>
<td>p</td>
<td>.737</td>
<td>.794</td>
<td>.000 ***</td>
<td>.038 *</td>
<td>.105</td>
<td>.469</td>
<td>.664</td>
</tr>
<tr>
<td>Total</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>6</td>
<td>2</td>
<td>5</td>
<td>2</td>
</tr>
</tbody>
</table>

Note: n = Number of cases; No = Intervention non implemented; Yes = Intervention implemented; Diff. = Difference of means; p = Probability; Total = Number of times the variable was significantly different; * p < 0.05; ** p < 0.01; *** p < 0.001
Chapter 6:
Discussion, Conclusions and Recommendations

Structure of the Empowerment Model

Following Bandura’s (1986) social, cognitive theory, psychological mechanisms were proposed as mediators in between organizational interventions and employee outcomes. These mechanism were mainly social, cognitive and affective assessments of the self in relation to the tasks, the job, the context and the organization. Empowerment was not conceptualized from the perspective of either the organization or managerial actions but from the point of view of how the employee perceive, reacts and behaves. Thus, empowerment is not about such things as participation and delegation but about enhancement of one’s own psychological mediating mechanisms (that is, assessments) and personal potential.

Diverse assessments have been proposed by theoreticians (Conger & Kanungo, 1988; Thomas & Velthouse, 1990) and studied by researchers (Fulford & Enz, 1995; Spreitzer, 1992). Those assessments were incorporated into a social, cognitive and affective model of empowerment as depicted by Figure 8. The questionnaire designed for the study can be considered as a sample of employees’ cognitions about diverse aspects of their job. The question was whether these relatively unsorted set of diverse cognitions belongs to the assessments incorporated in the model. That is, do employees really think and feel in terms of self-efficacy, meaningfulness, and the like as integrated and independent psychological mechanisms?
Factor analyses resulted in factors that resembled assessments and outcomes as proposed by the model, providing support to the structure of the social, cognitive and affective model of empowerment. That is, considering the questionnaire as a sample of a diverse relatively unordered set of cognitions and outcomes about tasks and jobs, factor analyses uncovered underlying dimensions that closely matched assessments and outcomes as proposed by the model, except that some assessments resulted in two factors and not in a single factor as originally supposed. These results provide construct validity to the model.

Thus, results in factor analysis provided further support to Thomas and Velthouse’s (1990) proposal that self-efficacy, meaningfulness, choice, and impact are distinct assessments taking place in employees’ empowerment, helping to solve some discussion that arose after Fulford and Enz’s (1995) factor analysis did not result in four groups of assessments as they did in Spreitzer’s (1992) study. Fulford and Enz’s study resulted in only three factors: meaningfulness, self-efficacy and a third one grouping choice and impact. This study showed that the four factors formed in two factor analyses, one for the task level and the other for the job level.

Results of factor analyses and reliability analyses provided support for the questionnaire regarding its internal consistency reliability and construct validity. Except for task impact and task commitment, which obtained marginal values, all of the variables in the study obtained Cronbach’s alpha values above 0.60, and most of them above 0.75.

Some elements of the social, cognitive and affective model of empowerment resulted in two underlying dimensions. In three cases, both dimensions were opposite (others’ competence versus others’ shortcomings, organizational commitment versus organizational aversion, and positive versus negative mood).
Regarding social, cognitive and affective assessments, others’ competence appeared to be split in two factors: others’ competence and others’ shortcomings. It seems that there is important to discriminate between two kinds of other’s competencies involved in the task. On the one hand, competencies assessed by the factor on other’s shortcomings seems to refer to competencies that are indispensable and for which absence would be a problem. They may be regarded as essential competencies. On the other hand, it seems to be another set of competencies --the ones assessed by the factor others’ competence-- that can are regarded as helpful but not essential. They may be labeled supportive competencies. This may imply that inbetween competence and shortcomings there are neutral zones of lack of competence and lack of shortcomings, with different results in employees attitudes. As an example, help of a competent boss or a disappearance act from an incompetent one may be both appreciated but interventions from a low qualified boss who wants his or her voice to be heard may be considered as obtrusive by employees.

Regarding outcomes, four variables resulted in two underlying dimensions: mood, task involvement, organizational commitment, and remain-withdrawal intentions. Mood was split in positive mood and negative mood. The implication is that employees might experience organizational commitment and still have organizational aversion, or experience positive and negative mood at the same time. This result does not differ from classical work motivation theory that proposes the existence of motivator and hygiene factors (Herzberg, 1986), in which positive mood will be related to motivator factors, and negative mood to hygiene factors. Absence of positive mood (enjoyment, excitement, enthusiasm, arousing and happiness) does not imply the existence of negative mood (sadness, distress, unhappiness, or gloominess) and the other way around. Lack of arousal just might imply that, in either direction.
Task involvement resulted in a dimension in task pride and another in task involvement. Considering Bandura’s (1986) proposal that extrinsic motivators are distinguished from intrinsic motivators in which the former ones have an external locus of origin and an arbitrary behavior-consequences contingency, the first dimension appears to be related to extrinsic and the second to intrinsic elements of task involvement. Task extrinsic involvement is primarily the obtaining of social recognition in relation to performing the task, which represents external and somewhat arbitrary sources of motivation. Task intrinsic involvement manifests as a more internalized commitment with the task itself. Task extrinsic involvement is a commitment with the social consequences of performing the task.

The construct organizational commitment resulted in two dimensions: organizational commitment and organizational aversion. These results replicate those by Penley and Gould (1988), who proposed that affective commitment had two dimensions: moral and alienative commitment, and whose scale was borrowed for measuring this construct. Moral commitment, named just organizational commitment here, represents “a kind of organizational identification” (p. 46) that represents a positive attachment to the organization. Whereas, alienative commitment, named organizational aversion here, represents, according to the authors, a type of commitment manifested by employees’ staying with the organization, but that has negative affective responses toward the organization because of lack of control over one’s career (like in a prison, the extreme case, but also in organizations where the cost of leaving is high because of such losses as a pension).

Finally, as expected, the variable remain-withdrawal intentions was split in two factors. One referred to intentions to remain in the department and the other to intentions to remain in the organization.
The separate dimensions that were found for some of the variables of the social, cognitive and affective model of empowerment (see Figure 7 and Table 8) are relatively independent because they came from orthogonal factor analysis. (Although orthogonal factor analysis produces completely independent factors, the variables used in this study were computed by averaging items with high loadings in a factor and not by using the factor loads). Considering independence of variables, an important lesson for managers is that the diverse couple of dimensions (for instance; organizational commitment and organizational aversion) should be considered in separate fashion because, contrary to common sense, presence of one does not imply absence of the other.

Figure 13. Independence of both dimensions of competence: others’ shortcomings and others’ competence.

For instance, let’s refer the couple of variables “others’ competence” (supportive competencies) and “others’ shortcomings” (essential competencies) to bosses as rated by employees and let’s call these variables “boss’ competence” and
"boss' shortcomings". Thus, employees will rate high in the variable boss' competence to a boss perceived as high in supportive competencies; but they still will rate him or her high in the variable boss' shortcomings if he or she is perceived as lacking in the essential competencies. On the opposite side, bosses regarded as competent because of their essential competencies may still be rated low in "boss' competence" because they are perceived as lacking in helping abilities. The independence of both variables is represented by Figure 13, where each variable may take any possible value independently of the other. As a conclusion, any organizational intervention aimed at changing these responses should consider the couple of dimensions together, because it could be misleading to improve one and assume that the other will become better.

As a conclusion, the structure of the social, cognitive and affective model of empowerment was supported. Mediating psychological mechanisms in the form of assessments clustered as proposed by theory and research. Some elements of the model turned out to be bi-dimensional.

**Task Assessments in Relation to Task Outcomes**

Based on social, cognitive theory, Thomas and Velthouse's (1992) proposed that specific assessments enhanced performance of tasks. They proposed that the relevant assessments were self-efficacy, meaningfulness, choice, and impact. These assessments were incorporated into the social, cognitive and affective model of empowerment under the name of task-self assessments.

In the study, task-self assessments predicted the diverse task-outcomes after removing extraneous variance by control variables and interventions. In most of the cases, task-self assessments were the group of variables contributing the most to \( R^2 \) change. According to Rosnow and Rosenthal (1984), the values obtained for \( R^2 \)
change were from medium to large. Thus, results of the study provided support to Thomas and Velthouse’s (1992) proposal.

However, only task self-efficacy and task meaningfulness had a role in predicting outcomes. That provides support to Bandura’s (1986) contention that, having appropriate incentives—which relates to meaningfulness—self-efficacy has a central role in the prediction of behavior at the task level. In fact, in the case of task performance in the study, task self-efficacy, which is the behavioral criterion most frequently used in social cognitive research, was the only significant predictor, as the theory implicitly proposes. Task choice and task impact did not have a significant role in the prediction of task outcomes. Results about task impact, however, should be taken with care because of its low internal consistency.

The social, cognitive and affective model also proposed that context-self assessments would account for additional variance in the prediction of task outcomes beyond the variance accounted by task assessments. This contention was not supported for task involvement (extrinsic and intrinsic) nor for task performance. Only in the case of mood (both positive and negative mood) did context-self assessments explained additional variance, but the sizes of the changes in the coefficient of determination were small. Individually, context-self assessments did not played a major role in predicting outcomes. Only social support predicted positive mood, and others’ shortcomings predicted negative mood.

In conclusion, at the task level of analysis, these results for the social, cognitive and affective model of empowerment support a simplified model with two single assessments predicting task outcomes. This would also simplify the job of managers expecting to improve employees’ attitudes and responses regarding specific tasks in the job. Social, cognitive theory has very clear directions about how to proceed to help employees to increase self-efficacy and meaningfulness.
Job Assessments in Relation to Job Outcomes

Bandura (1986) has repeatedly insisted in the importance of being specific in the measuring of self-efficacy, and Thomas and Velthouse (1990) stated that assessments predicting outcomes are specific to the task. However, studies in empowerment (Fulford & Enz, 1995; Spreitzer, 1992) have operationalized assessments at a job level. Job assessments are cognitive and affective generalizations of task assessments, and are hypothesized to have a role in predicting job outcomes.

In the study, job-self assessments predicted all but one of the diverse job-outcomes after removing extraneous variance accounted for by control variables and interventions. Except for the case of extra-role behavior, coefficients of determination sizes ranged from medium (in the case of organizational commitment) to large (in the case of job satisfaction). These results resembled those of task-self assessments, providing further support to Thomas and Velthouse’s (1992) proposal that more global assessments have a role in the process of empowerment.

Considering individual analyses for assessments, meaningfulness continued playing a major role in the prediction of outcomes as compared with results for the task level. It seems that at the Job level of specificity, significance of the job is more important that any other job-self assessment in predicting such job outcomes as job satisfaction, and organizational commitment, aversion and withdrawal. This provides support to Aktouf’s (1992) declaration that “the human being is, by definition and necessity, a being whose destiny is meaning, intentions, and projects—thus, by nature, a person is involved in his or her being in his or her becoming (to which alienation is an obstacle): a subject whose being is meaning and which has need of meaning” (p. 415).
Self-efficacy had a less important role at the Job level than at the Task level. A possible explanation is that this assessment is less relevant the more generalized it becomes. There is a tendency in past research that the less specific self-efficacy is measured the less relevant it becomes. For instance, Noe and Wilk’s (1993) study included a measure of generalized self-efficacy that resulted in no relationships with employees’ enrollment in training. Extrapolating this thought to the global level of generalization (as presented in Figure 12), the surprising conclusion would be that, contrary to proposals of self-esteem psychology (Branden, 1985), self-confidence is of no relevance in the prediction of well-being.

Another possibility is that a ceiling effect took place in the sample of the study, considering that self-efficacy was the assessment with the highest mean and the lowest range and variance (see Table 9). In fact, there is evidence that the role of self-efficacy changes during the learning process (Mitchell et. al, 1994), being less important as learning improves. Self-efficacy might even become negatively related with outcomes if other variables such as goals remain the same (Jones, 1986). For instance, if an employee believes that his or her competence has largely improved but the job remains the same, the employee might feel unmotivated because of perceived lack of challenges. This might explain why job self-efficacy was negatively related to organization remain intentions.

Also differing from the task-level results, choice was significant in two cases. Unexpectedly, the direction for the prediction was negative in the case of organizational commitment, implying that the more autonomy and authority an employee has the less committed he or she is. This provide support to the idea expressed in the definition of empowerment that delegation (the act of giving part or all of one’s power, Longman, 1983) is not empowering per se, and that it might even
result in impoverishment for the employee. More research is needed to untangle the factors resulting in job choice having negative results.

It was proposed under the social, cognitive and affective model that organization-self assessments accounted for additional variance in the prediction of job outcomes to that accounted by job-self assessments. Table 16 shows that change in the coefficient of determination due to organization-self assessments was significant in all but one of the cases, providing support for the affirmation that organization-self assessments have a role in employees’ attitudes and responses.

Among organization-self assessments, opportunity played a major role in the prediction of outcomes. Considering that opportunity is an assessment of the present and future availability of valued states and outcomes, the results also support Aktouf’s (1992) remarks about the importance of employees’ intentions and projects. This resembles the conclusions about task and job meaningfulness stated above. In fact, opportunity and meaning may be thought as complementary assessments, one referred to the significance of what is done and what can be achieved in the job, and the other to the possibility of realizing those intentions. An implication for management is that if high levels of satisfaction and commitment are needed from employees, their meanings, strivings and expectations should be carefully taken into consideration when deciding about employees’ activities and positions.

Alignment also played a role in the prediction of the two aspects of organizational commitment: commitment and aversion. The more value alignment between the employee and the organization the more organizational commitment and the less organizational aversion. Thus, employees’ values are factors that managers should take into consideration when the organization needs satisfaction and commitment from its people.
Extra role behaviors were not predicted by any group of variables. Because it was thought that behaviors in aggregated form were disguising their individual variance, further hierarchical regression analyses were run with each of the behaviors as a criterion variable. However results showed that not one of the five group of predictor variables produced significant change in the coefficient of determination. It was concluded that extra role behavior was not predicted by social, cognitive and affective assessments. The items that entered into the variable extra-role behavior in the factor analysis represent helping, pro-social responses. Thus, the results are congruent with social, cognitive theory proposal that behavior is dependent on self-assessments related to the particular behavior. Perhaps, pro-social behavior will be better predicted by employees’ sense of the meaningfulness of a particular pro-social response and by their self-efficacy perceptions regarding such a specific response. For instance, “helping customers or visitor if they need assistance” will be better predicted by employees’ ideas about the significance of providing such a help and by his or her perceived competence to provide it. Employees’ perception of the significance of specific pro-social behaviors will be in part determined by the organizational culture.

In summary, results in the role of self assessments tended to be better for analyses at the task level than at the job level, which is congruent with Bandura’s (1986) insistence in the specificity of social, cognitive processes. Employees’ meanings and intentions continue playing a major role in predicting outcomes.

Discussion of the Results for Control Variables

As showed in Tables 13 and 16, except for two cases, control variables (Age, Study Level, Position Tenure, and Tenure in Organization) did not predict outcomes at any level of specificity. Closer examination of beta weights in these two cases (see Table 14 under task extrinsic involvement and positive mood) showed no significant
values for any of the control variables. Considering that eleven multiple regression analyses were done, probably control variables were significant in those two cases just by chance alone. Thus, control variables played no role in predicting outcomes. Contrary to common sense, neither age, study level nor tenure resulted in higher levels of such affective or enactive employee’s outcomes as satisfaction, involvement, commitment, performance, or mood. This may be in part due to a ceiling effect because of the particular sample in the study comprised of highly educated employees (see Table 3).

**Relationship Between Task and Job Assessments**

Social cognitive theory (Bandura, 1986) proposes that self-referent thought regarding specific tasks is highly correlated with outcomes that are related to the specific tasks. An inference from the theory is that more generalized self-referent thought has less predictive power over outcomes than specific self-referent thought. Limited support was found for Hypotheses 5 (task outcomes are better predicted by task assessments than by job assessments) and 6 (job assessments are better predicted by job assessments than by task assessments), considering that for only three (negative mood, organizational commitment, and organization remain-withdrawal intentions) among eleven outcomes were results statistically significant.

However, a trend to significance was found in two other outcomes (task intrinsic and extrinsic involvement). Furthermore, extra-role behavior was not predicted by any of the diverse assessments. Moreover, despite the lack of significance of the differences for some of the outcomes, all of the differences are in the expected direction. No test of hypothesis for comparing sets of correlation coefficients was found in the literature and the testing of hypotheses had to be done by repeated comparisons of $R^2$ changes. It is possible that a test incorporating the variance of all of the coefficients together results in the differences being significant.
Such a testing waits until an adequate procedure is developed. Thus, a question remains about the relevance of attending to social, cognitive and affective phenomena of empowerment at diverse levels of specificity.

One limitation of the study was that in the attempt to get a wide variety of jobs in the sample, no control was possible over the task selected by respondents. As explained before, subjects were asked first to specify the most important task in their job and then to answer to questions about it. A review of responses showed that some subjects were not very specific in their choosing of the task: sometimes the written description of the task resembled the description of the job. Future studies should control for the task level of specificity.

Organizational Empowering Interventions

Social cognitive theory (Bandura, 1986) has proposed that in between organizational interventions and employee outcomes there is a mediating role of psychological mechanisms, mainly in the form of social, cognitive and affective assessments. It is very common that studies in employee’ empowerment focus on a direct link between organizational interventions and employee outcomes, which frequently results in no significant relationships. Results for Hypothesis 7, proposing that social, cognitive and affective assessments were better predictors of employees’ outcomes than organizational empowering interventions were, provided support for the idea that mediating psychological mechanisms (social, cognitive and affective) assessments play an important role in the process of employees’ empowerment.

When implementing interventions in organizations, managers should carefully consider how employees perceive and internally process what is proposed to them. Particularly, it should be observed how interventions affect employees’ self-efficacy and meaningfulness perceptions. Because these processes are internal to the
employee, it is necessary that managers keep communication channels open with people to know about their perceptions of efficacy and meaning. The most successful interventions will be those helping employees to find personal meaning in the job and increasing their assessments of self-efficacy regarding their tasks.

Among sixteen diverse interventions explored by the study, four of them:

- Intervention 1: Total quality, continuous improvement approaches,
- Intervention 2: Programs for ISO9000 certification,
- Intervention 8: Participative leadership, participation in decision making,
- Intervention 14: Quality of working life

seemed to be related to increases in both task and job employees’ assessments.

Additionally, Intervention 6: Reengineering-process management had an impact only in task assessments and three other interventions:

- Intervention 7: Excellence leadership-high performance leadership
- Intervention 9: Management by objectives and
- Intervention 16: Other programs

had an impact only in job assessments.

The social, cognitive and affective model of empowerment (see Figure 8) proposes that empowering interventions have an impact on the factors of empowerment, and that the factors of empowerment have an effect on employees’ outcomes. However, considering that the results of the study showed that only four assessments (task self-efficacy, task meaningfulness, job meaningfulness, and opportunity) played a major role in predicting outcomes, interventions are not having any impact in three of these core assessments. Only excellence leadership and participative leadership had an impact on opportunity. It seems that, at least for organizations in the sample, various organizational interventions are not having
relevant impacts on employees’ factors of empowerment. Probably employee outcomes will reach higher levels if managers design interventions to have direct impact on such employees’ assessments as task-self efficacy, task and job meaningfulness, and opportunity.

Conclusions

In this study, results testing the social, cognitive and affective model of empowerment proposed in Figure 8 supported a simplified model at the task level of analysis, with two single assessments playing a major role in the prediction of task outcomes instead of the diverse assessments proposed. Task self-efficacy and task meaningfulness were at the core of the prediction of task outcomes. These results are in the direction of Bandura’s’ (1986) social, cognitive theory that gives a central role to purposes and competence expectations. However, more evidence needs to be obtained, particularly in the case of task choice because of the low reliability of the scale.

It is also possible that interactions among assessments are taking place in such a way that two assessments potentiate their effect by association. In fact, although working at the Job level, Spreitzer (1992) proposed that a psychological sense of empowerment is formed according to the formula:

\[
\text{Empowerment} = \text{meaningfulness} \times (\text{self-efficacy} + \text{choice} + \text{impact})
\]

For instance, Morrison and Brantner (1992) found that significance enhanced self-efficacy in the prediction of learning. Future research should explore such kind of interactions among assessments in the prediction of employees’ outcomes.

According to the results of this study, the job of managers in empowering employees at the task level is re-directed. It has been supported the idea that empowerment is not a matter of giving employees control (choice and impact)
through delegation and invitation to participate in decision making, but a matter of helping employees to reach meaningfulness in relation to the task and increasing their self-efficacy perception through programs leading to progressive mastering of tasks through carefully designed enactive and vicarious experiences.

Meaning and opportunity played the central role in prediction of employee outcomes at the job level. As pointed out before, opportunity and meaning are related assessments: one is about the significance of what is done and what can be achieved, and the other about the possibility of realizing it. Implications for management are that empowerment at the job level results mainly from the promotion of managerial interventions that restore the meaning of the job and the transforming of the organization in what Aktouf (1992) names an “humanized firm” and in which employees can fulfill a broad array of their aspirations.

Considering that alignment was a predictor of organizational commitment and aversion, lessons for management are that, if organizational commitment is going to be enhanced, employees’ values need to be taken into consideration.

Implications for management are that when interventions are designed to empower people in the workplace, employees’ perceptions and internal assessments should not be taken for granted. It should not be assumed that any intervention in the form of job enrichment, increases of opportunities to participate in decision making, installing work teams, or the like is going to automatically produce positive results in the form of higher employees’ performance, involvement, commitment, satisfaction or intentions to remain. The way employees react internally to managerial interventions is fundamental to their results.

According to the results of this study, perceptions of self-efficacy and perceptions of significance regarding tasks and jobs are of high importance. Any
managerial intervention should clearly plan for increasing employees’ perceptions of competence and meaningfulness through appropriate enhancement programs. Empowerment is not about managerial, external to the individual, organizational changes, such as allowing people to participate or delegating responsibilities but is about helping the employee to become internally potentiated through the enhancement of their perceptions of their capabilities and significance. This is better described by saying that true empowerment is obtained through self-empowerment, which means a growth in employees’ possibilities. When such self-assessments generalize from task to jobs, and from jobs to the ones’ life, employees become more self-actualized.

Effective empowering interventions are those having an impact internally in the employee. Empowering interventions should affect social, cognitive and affective assessments. Organizational interventions could be more effective if they are designed to directly have an impact in employees’ core social, cognitive and affective assessments. They should increase employees’ task-self efficacy, meaningfulness at both levels, and opportunity of realizing expectations.

Limitations

A limitation of the study was that ceiling effects could be present due to the use of a sample confined to of highly educated people. Results could not be generalized to less educated employees. Also, since this is a correlational study, no true cause and effect conclusions can be drawn. Further research should explore whether other assessments play a role in determining employee outcomes. A wider variance in the variables should be obtained by including blue collar employees. It will be also necessary to use diverse measurements of dependent variables to avoid problems of common methods variance.
Although the study incorporated employees from diverse sectors, from manufacturing to education, the sample was one of convenience. This problem of external validity would be reduced by random sampling. The supervisory level of medium size businesses of Central Mexico is probably well represented by the sample. However, Mexico is a highly heterogeneous country and a stratified sample would be needed to be able to generalize conclusions to the whole country.

Further research should also have more control of the tasks involved. This can be done if the study focuses on a particular job in such a way that tasks can be determined for all subjects in the sample. For instance; if the study includes secretaries, such tasks as writing letters, organizing files, receiving people, answering the phone, etc. could be specified. Then secretaries’ assessments regarding each of the tasks would be collected, besides their assessment of the job as a whole.

An experimental study could also be used as a continuation of this line of research. In such a study, assessments would be controlled by the experimenter producing diverse levels of assessments through experimental manipulation of external conditions. A single occupation could be included and diverse tasks arranged by degree of difficulty.

Further research should focus in the interaction among assessments in the prediction of employees’ outcomes. There is probably a multiplicative effect of self-efficacy and meaningfulness in the sense that both need to be high to produce a high affective and enactive response. Probably whenever both of these assessments are low, motivation, satisfaction, commitment and performance will be low.
Appendix A: Descriptive statistics for Items

Table A1. Descriptive statistics for items in task-self variables

<table>
<thead>
<tr>
<th>Item</th>
<th>Mean</th>
<th>Std D</th>
<th>Label</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Task self-efficacy</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TSE1</td>
<td>6.29</td>
<td>0.92</td>
<td>This activity is well within my scope of my abilities, capabilities and</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>personal characteristics ☣</td>
</tr>
<tr>
<td>TSE2</td>
<td>6.49</td>
<td>0.72</td>
<td>I am confident about my ability to do this activity ☣</td>
</tr>
<tr>
<td>TSE3</td>
<td>6.50</td>
<td>0.65</td>
<td>I am confident of being successful in facing the highest challenges of this activity ☣</td>
</tr>
<tr>
<td>TSE4</td>
<td>6.42</td>
<td>0.79</td>
<td>I feel confident about being successful doing this activity ☣</td>
</tr>
<tr>
<td>TSE5</td>
<td>6.05</td>
<td>1.46</td>
<td>I frequently have doubts about my capabilities or preparation to do this activity ☣</td>
</tr>
<tr>
<td>TSE6</td>
<td>4.06</td>
<td>2.07</td>
<td>I have to improve a lot in the skills, capabilities and characteristics that are needed to successfully do this activity ☣</td>
</tr>
<tr>
<td>TSE7</td>
<td>5.73</td>
<td>0.96</td>
<td>I have mastered the skills to successfully do this activity ☣</td>
</tr>
<tr>
<td><strong>Task meaningfulness</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TMN1</td>
<td>6.42</td>
<td>1.19</td>
<td>The purpose of this activity, written above, is highly worthwhile to me ☣</td>
</tr>
<tr>
<td>TMN2</td>
<td>5.78</td>
<td>1.31</td>
<td>Fighting for this purpose provides meaning to my life ☣</td>
</tr>
<tr>
<td>TMN3</td>
<td>6.09</td>
<td>1.12</td>
<td>I feel very sorry when the purpose of this activity is not fulfilled ☣</td>
</tr>
<tr>
<td>TMN4</td>
<td>6.55</td>
<td>0.90</td>
<td>I really don't care about which consequences this activity does or does not have ☣</td>
</tr>
<tr>
<td>TMN5</td>
<td>6.32</td>
<td>0.90</td>
<td>This activity is meaningful to me ☣</td>
</tr>
<tr>
<td><strong>Task choice</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TCH1</td>
<td>5.85</td>
<td>1.21</td>
<td>I have the necessary autonomy to do this activity ☣</td>
</tr>
<tr>
<td>TCH2</td>
<td>5.32</td>
<td>1.81</td>
<td>I am not allowed to use the personal initiative I need in carrying out this activity ☣</td>
</tr>
<tr>
<td>TCH3</td>
<td>5.90</td>
<td>1.18</td>
<td>I have the necessary independence and freedom to do this activity ☣</td>
</tr>
<tr>
<td>TCH4</td>
<td>4.99</td>
<td>1.88</td>
<td>The level of authority I have when doing this activity is not appropriate ☣</td>
</tr>
<tr>
<td>TCH5</td>
<td>5.64</td>
<td>1.35</td>
<td>I have the authority to decide on my own when doing this activity ☣</td>
</tr>
<tr>
<td><strong>Task impact</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TIM1</td>
<td>3.22</td>
<td>1.77</td>
<td>There are many factors out of my control that affect the accomplishment of the goal or purpose of this activity ☣</td>
</tr>
<tr>
<td>TIM2</td>
<td>2.17</td>
<td>1.52</td>
<td>I wish my behavior had a higher impact in fulfilling the purpose or objective of this activity ☣</td>
</tr>
<tr>
<td>TIM3</td>
<td>5.47</td>
<td>1.58</td>
<td>It would be very difficult to accomplish the goal or objective of this activity if there is not an intervention like mine or a similar one ☣</td>
</tr>
<tr>
<td>TIM4</td>
<td>5.85</td>
<td>1.04</td>
<td>I have a good degree of control over the accomplishment of the goal or purpose of this activity ☣</td>
</tr>
<tr>
<td>TIM5</td>
<td>6.31</td>
<td>0.88</td>
<td>What I do has a significant impact over the accomplishment of the goal or purpose of this activity ☣</td>
</tr>
</tbody>
</table>

Note: ☣ = Reverse scored items; ☣ = Straight scored items.
Table A2.
Descriptive statistics for items in context-self variables

<table>
<thead>
<tr>
<th>Item</th>
<th>Mean</th>
<th>Std D</th>
<th>Label</th>
</tr>
</thead>
<tbody>
<tr>
<td>OTc1</td>
<td>5.60</td>
<td>1.27</td>
<td></td>
</tr>
<tr>
<td>OTc2</td>
<td>5.82</td>
<td>1.47</td>
<td></td>
</tr>
<tr>
<td>OTc3</td>
<td>5.65</td>
<td>1.31</td>
<td></td>
</tr>
<tr>
<td>OTc4</td>
<td>5.59</td>
<td>1.21</td>
<td></td>
</tr>
<tr>
<td>OTc5</td>
<td>5.42</td>
<td>1.23</td>
<td></td>
</tr>
<tr>
<td>OTc6</td>
<td>5.25</td>
<td>1.86</td>
<td></td>
</tr>
<tr>
<td>OTc7</td>
<td>5.19</td>
<td>1.69</td>
<td></td>
</tr>
<tr>
<td>OTc8</td>
<td>5.36</td>
<td>1.62</td>
<td></td>
</tr>
<tr>
<td>SUP1</td>
<td>5.35</td>
<td>1.82</td>
<td></td>
</tr>
<tr>
<td>SUP2</td>
<td>5.62</td>
<td>1.51</td>
<td></td>
</tr>
<tr>
<td>SUP3</td>
<td>5.60</td>
<td>1.22</td>
<td></td>
</tr>
<tr>
<td>SUP4</td>
<td>5.58</td>
<td>1.25</td>
<td></td>
</tr>
<tr>
<td>SUP5</td>
<td>5.47</td>
<td>1.07</td>
<td></td>
</tr>
<tr>
<td>RAV1</td>
<td>4.25</td>
<td>1.94</td>
<td></td>
</tr>
<tr>
<td>RAV2</td>
<td>5.24</td>
<td>1.75</td>
<td></td>
</tr>
<tr>
<td>RAV3</td>
<td>5.87</td>
<td>1.23</td>
<td></td>
</tr>
<tr>
<td>RAV4</td>
<td>4.82</td>
<td>1.89</td>
<td></td>
</tr>
<tr>
<td>RAV5</td>
<td>5.50</td>
<td>1.76</td>
<td></td>
</tr>
<tr>
<td>RAV6</td>
<td>5.64</td>
<td>1.42</td>
<td></td>
</tr>
</tbody>
</table>

**Others' competence**
- **OTC1**: The people whose collaboration is required for you to accomplish this task are capable enough to do their part of the task.
- **OTC2**: My boss and other people above my level are competent enough to do what they have to do for me to successfully accomplish this task.
- **OTC3**: My colleagues and other people at the same level I am are competent enough to do what they have to do for me to successfully accomplish this task.
- **OTC4**: My subordinates and other people below are competent enough to do what they have to do for me to successfully accomplish this task.
- **OTC5**: My customers or other people I help or attend are competent enough to do what they have to do for me to successfully accomplish this task.
- **OTC6**: The shortcomings of my boss or of other people above my level are currently having a negative effect in my performance of this task.
- **OTC7**: The shortcomings of my subordinates or other people below my level are currently having a negative effect in my performance of this task.
- **OTC8**: The shortcomings of my colleagues or of other people at my same level are currently having a negative effect in my performance of this task.

**Social support**
- **SUP1**: It is difficult to find in my work a supportive person to talk to about this task.
- **SUP2**: My boss provides the personal and emotional support I need to accomplish this task.
- **SUP3**: My colleagues and other people at my level provide the personal and emotional support I need to accomplish this task.
- **SUP4**: My subordinates provide the personal and emotional support I need to accomplish this task.
- **SUP5**: My customers or other people I help or attend provide the personal and emotional support I need to accomplish this task.

**Organizational support**
- **RAV1**: Many times I lack the information necessary to do this task well.
- **RAV2**: The budget for this activity is appropriate.
- **RAV3**: I have the necessary time available to do this activity well.
- **RAV4**: I hardly ever get additional resources to accomplish this activity.
- **RAV5**: It is hard to me to do this activity well because I do not have all the materials, supplies, or equipment I need to do it.
- **RAV6**: I have available the necessary resources to do this activity well.

*Note: © = Reverse scored items; ® = Straight scored items.*
Table A3.
Descriptive statistics for items in task-outcome variables

<table>
<thead>
<tr>
<th>Item</th>
<th>Mean</th>
<th>Std De</th>
<th>Label</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mood</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MOD1</td>
<td>5.30</td>
<td>.72</td>
<td>Enjoyed ⊗</td>
</tr>
<tr>
<td>MOD2</td>
<td>4.91</td>
<td>.95</td>
<td>Excited ⊗</td>
</tr>
<tr>
<td>MOD3</td>
<td>5.20</td>
<td>.80</td>
<td>Enthusiastic ⊗</td>
</tr>
<tr>
<td>MOD4</td>
<td>5.24</td>
<td>.80</td>
<td>Aroused ⊗</td>
</tr>
<tr>
<td>MOD5</td>
<td>5.15</td>
<td>.74</td>
<td>Happy ⊗</td>
</tr>
<tr>
<td>MOD6</td>
<td>3.67</td>
<td>1.41</td>
<td>Nervous ⊗</td>
</tr>
<tr>
<td>MOD7</td>
<td>5.03</td>
<td>1.14</td>
<td>Sad ⊗</td>
</tr>
<tr>
<td>MOD8</td>
<td>5.02</td>
<td>1.21</td>
<td>Distressed ⊗</td>
</tr>
<tr>
<td>MOD9</td>
<td>5.08</td>
<td>1.52</td>
<td>Unhappy ⊗</td>
</tr>
<tr>
<td>MOD10</td>
<td>5.50</td>
<td>.96</td>
<td>Blue ⊗</td>
</tr>
<tr>
<td><strong>Task involvement</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TIN1</td>
<td>6.11</td>
<td>1.03</td>
<td>I am proud to tell others that I do this activity ⊗</td>
</tr>
<tr>
<td>TIN2</td>
<td>6.21</td>
<td>.97</td>
<td>I talk up this activity as something very worthwhile ⊗</td>
</tr>
<tr>
<td>TIN3</td>
<td>5.87</td>
<td>1.16</td>
<td>This is the one of the best activities to do in a job ⊗</td>
</tr>
<tr>
<td>TIN4</td>
<td>6.48</td>
<td>.73</td>
<td>I really care about this activity ⊗</td>
</tr>
<tr>
<td>TIN5</td>
<td>5.91</td>
<td>1.27</td>
<td>If I could do it all over, I would still choose a job to do this activity ⊗</td>
</tr>
<tr>
<td>TIN6</td>
<td>5.38</td>
<td>1.73</td>
<td>If I had all the money I wanted, I would still do this activity ⊗</td>
</tr>
<tr>
<td>TIN7</td>
<td>5.78</td>
<td>1.54</td>
<td>Sometimes I am disappointed that I ever worked doing this activity ⊗</td>
</tr>
<tr>
<td>TIN8</td>
<td>4.91</td>
<td>1.67</td>
<td>Most of my personal life goals are centered around this activity ⊗</td>
</tr>
<tr>
<td>TIN9</td>
<td>6.47</td>
<td>.85</td>
<td>I learn all I can about this activity ⊗</td>
</tr>
<tr>
<td><strong>Task Performance</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Initiative</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>INI1</td>
<td>5.42</td>
<td>.68</td>
<td>I show initiative when facing problems in this activity ⊗</td>
</tr>
<tr>
<td>INI2</td>
<td>5.32</td>
<td>.72</td>
<td>I show initiative in getting started on the task ⊗</td>
</tr>
<tr>
<td><strong>Effort</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EFF1</td>
<td>5.42</td>
<td>.92</td>
<td>I am lazy in doing this activity ⊗</td>
</tr>
<tr>
<td>EFF2</td>
<td>5.47</td>
<td>.63</td>
<td>I work hard on this activity ⊗</td>
</tr>
<tr>
<td><strong>Resiliency</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RSL1</td>
<td>4.66</td>
<td>1.13</td>
<td>I easily get discouraged when facing difficulties in this activity ⊗</td>
</tr>
<tr>
<td>RSL2</td>
<td>5.43</td>
<td>.61</td>
<td>I have been tenacious and persistent in performing this activity ⊗</td>
</tr>
<tr>
<td><strong>Achievement</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACH1</td>
<td>4.33</td>
<td>1.19</td>
<td>My performance in this activity is high compared with colleagues ⊗</td>
</tr>
<tr>
<td>ACH2</td>
<td>4.78</td>
<td>1.25</td>
<td>I don’t seem to get much done each time I do this task ⊗</td>
</tr>
</tbody>
</table>

*Note:* ⊗ = Reverse scored items; ⊗ = Straight scored items.
<table>
<thead>
<tr>
<th>Item</th>
<th>Mean</th>
<th>Std De</th>
<th>Label</th>
</tr>
</thead>
<tbody>
<tr>
<td>JSE1</td>
<td>6.52</td>
<td>.64</td>
<td>My job is well within my scope of my abilities ✔</td>
</tr>
<tr>
<td>JSE2</td>
<td>6.73</td>
<td>.49</td>
<td>I am confident about my capabilities to do my job ✔</td>
</tr>
<tr>
<td>JSE3</td>
<td>6.01</td>
<td>.87</td>
<td>I have mastered the skills to do my job ✔</td>
</tr>
<tr>
<td>JSE4</td>
<td>5.85</td>
<td>1.18</td>
<td>I have what it takes to be very successful in my present job ✔</td>
</tr>
<tr>
<td>JSE5</td>
<td>5.05</td>
<td>1.82</td>
<td>I need much more training to be successful in my present job ®</td>
</tr>
</tbody>
</table>

**Job Meaningfulness**

| JMN1   | 6.68 | .57    | My work is important to me ✔                   |
| JMN2   | 6.58 | .66    | My job is meaningful to me ✔                   |
| JMN3   | 6.68 | .59    | I care about what I do on my job ✔             |
| JMN4   | 4.74 | 2.05   | I’d rather have a job that is more worthwhile ®|
| JMN5   | 6.31 | 1.13   | My present job doesn’t give me anything of value ®|

**Job Choice**

| JCH1   | 5.91 | 1.15   | I have significant autonomy to determine how I do my job ✔|
| JCH2   | 5.64 | 1.07   | I can decide on my own how to go about doing my work ✔|
| JCH3   | 5.84 | 1.09   | The degree of independence and freedom I have to decide how to do my job is adequate ✔|
| JCH4   | 5.39 | 1.71   | I have little chance to use personal initiative in carrying out my job ®|
| JCH5   | 5.46 | 1.67   | I have not freedom to carry out new ideas in my job ®|

**Job Impact**

| JIM1   | 5.37 | 1.31   | My opinion counts ✔                            |
| JIM2   | 4.86 | 1.37   | My impact in what happens is large ✔           |
| JIM3   | 5.77 | 1.37   | There is no way I am taken into account ®       |
| JIM4   | 5.55 | 1.21   | I have the means to influence the change ✔      |
| JIM5   | 5.64 | 1.41   | My wishes or opinion have no impact in what will be decided ®|

*Note:* ® = Reverse scored items; ✔ = Straight scored items.
Table A5.
Descriptive statistics for items in organization-self variables

<table>
<thead>
<tr>
<th>Item</th>
<th>Mean</th>
<th>Std De</th>
<th>Label</th>
</tr>
</thead>
<tbody>
<tr>
<td>OPP1</td>
<td>5.71</td>
<td>1.14</td>
<td>I have obtained what I am looking for in the organization I work for ⊗</td>
</tr>
<tr>
<td>OPP2</td>
<td>5.12</td>
<td>1.79</td>
<td>I have not found what I was expecting in the organization I work for ⊘</td>
</tr>
<tr>
<td>OPP3</td>
<td>5.21</td>
<td>1.79</td>
<td>I am lacking the opportunities to obtain what I strive for professionally in the organization where I work ⊘</td>
</tr>
<tr>
<td>OPP4</td>
<td>5.70</td>
<td>1.44</td>
<td>I believe the organization where I work will give me what I will look for in the future ⊘</td>
</tr>
<tr>
<td>OPP5</td>
<td>5.46</td>
<td>1.66</td>
<td>I don't believe I am going to get what I ideally expect from the organization I work for ⊘</td>
</tr>
<tr>
<td>ALG1</td>
<td>5.94</td>
<td>1.05</td>
<td>I agree with the values and way of thinking of the organization where I work ⊗</td>
</tr>
<tr>
<td>ALG2</td>
<td>5.96</td>
<td>1.52</td>
<td>I frequently have ethical or moral conflicts in the organization where I work because of what I have to do there ⊘</td>
</tr>
<tr>
<td>ALG3</td>
<td>5.96</td>
<td>1.07</td>
<td>There is a good fit between the values of the organization I work for and my values ⊗</td>
</tr>
<tr>
<td>ALG4</td>
<td>5.94</td>
<td>1.13</td>
<td>I feel at easy with the atmosphere of the organization I work for ⊗</td>
</tr>
<tr>
<td>ALG5</td>
<td>5.09</td>
<td>1.94</td>
<td>Frequently I face an ethical conflict with the way managers behave in the organization I work for ⊘</td>
</tr>
<tr>
<td>RES1</td>
<td>6.24</td>
<td>.96</td>
<td>I have access to the information in my organization that I need to do my job ⊗</td>
</tr>
<tr>
<td>RES2</td>
<td>5.90</td>
<td>1.29</td>
<td>I have access to the organizational resources I need to perform my job well ⊗</td>
</tr>
<tr>
<td>RES3</td>
<td>5.58</td>
<td>1.38</td>
<td>I can obtain the materials and funds necessary to support new ideas and improvements in my area ⊗</td>
</tr>
<tr>
<td>RES4</td>
<td>4.81</td>
<td>1.84</td>
<td>When I need additional resources to do my job, I seldom get them ⊘</td>
</tr>
<tr>
<td>RES5</td>
<td>5.34</td>
<td>1.62</td>
<td>It is hard to do a professional job because I do not have all of the time I need to do it well ⊘</td>
</tr>
</tbody>
</table>

Note: ⊘ = Reverse scored items; ⊗ = Straight scored items.
Table A6.
Descriptive statistics for items in job-outcome variables

<table>
<thead>
<tr>
<th>Item</th>
<th>Mean</th>
<th>St D</th>
<th>Label</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Job Satisfaction</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>JST1</td>
<td>4.60</td>
<td>.66</td>
<td>Enjoyable - Miserable &lt;&gt;</td>
</tr>
<tr>
<td>JST2</td>
<td>4.26</td>
<td>.81</td>
<td>Hopeful - Discouraging &lt;&gt;</td>
</tr>
<tr>
<td>JST3</td>
<td>4.12</td>
<td>.79</td>
<td>Full - Empty &lt;&gt;</td>
</tr>
<tr>
<td>JST4</td>
<td>4.39</td>
<td>.77</td>
<td>Unfriendly - Friendly &lt;&gt;</td>
</tr>
<tr>
<td>JST5</td>
<td>4.65</td>
<td>.66</td>
<td>Useless - Worthwhile &lt;&gt;</td>
</tr>
<tr>
<td>JST6</td>
<td>4.34</td>
<td>.78</td>
<td>Disappointing - Rewarding &lt;&gt;</td>
</tr>
<tr>
<td>JST7</td>
<td>4.46</td>
<td>.82</td>
<td>Discouraging - Challenging &lt;&gt;</td>
</tr>
<tr>
<td>JST8</td>
<td>4.47</td>
<td>.72</td>
<td>Attractive - Repulsive &lt;&gt;</td>
</tr>
<tr>
<td>JST9</td>
<td>4.32</td>
<td>.84</td>
<td>Disheartening - Stimulating &lt;&gt;</td>
</tr>
<tr>
<td>JST10</td>
<td>4.47</td>
<td>.75</td>
<td>Satisfying - Unsatisfying &lt;&gt;</td>
</tr>
<tr>
<td><strong>Organizational Commitment</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OCO1</td>
<td>5.71</td>
<td>1.12</td>
<td>I get upset when people say bad things about this organization &lt;&gt;</td>
</tr>
<tr>
<td>OCO2</td>
<td>5.54</td>
<td>1.61</td>
<td>I would like to walk out of this organization and never come back &lt;&gt;</td>
</tr>
<tr>
<td>OCO3</td>
<td>6.59</td>
<td>.94</td>
<td>I often feel like I want to 'get even' with this company &lt;&gt;</td>
</tr>
<tr>
<td>OCO4</td>
<td>5.34</td>
<td>1.80</td>
<td>Whenever I am in public, I think of myself as an employee of this organization &lt;&gt;</td>
</tr>
<tr>
<td>OCO5</td>
<td>5.59</td>
<td>1.80</td>
<td>I feel trapped in this organization &lt;&gt;</td>
</tr>
<tr>
<td>OCO6</td>
<td>6.00</td>
<td>1.21</td>
<td>I am dedicated to this organization &lt;&gt;</td>
</tr>
<tr>
<td>OCO7</td>
<td>6.53</td>
<td>.94</td>
<td>I get angry when I think about this organization &lt;&gt;</td>
</tr>
<tr>
<td>OCO8</td>
<td>6.33</td>
<td>.91</td>
<td>I feel it is my duty to support this organization &lt;&gt;</td>
</tr>
<tr>
<td>OCO9</td>
<td>5.78</td>
<td>1.72</td>
<td>No matter what I do around here, this organization never improves &lt;&gt;</td>
</tr>
<tr>
<td>OCO10</td>
<td>6.19</td>
<td>1.12</td>
<td>It is my personal responsibility to help this organization achieve success &lt;&gt;</td>
</tr>
<tr>
<td><strong>Extra-role Behaviors</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ERB1</td>
<td>4.49</td>
<td>1.41</td>
<td>Helping or giving encouragement to new employees when not asked &lt;&gt;</td>
</tr>
<tr>
<td>ERB2</td>
<td>5.13</td>
<td>1.12</td>
<td>Trying to learn more about your job or other jobs &lt;&gt;</td>
</tr>
<tr>
<td>ERB3</td>
<td>5.50</td>
<td>.96</td>
<td>Arriving at work early to get a start on the day’s work &lt;&gt;</td>
</tr>
<tr>
<td>ERB4</td>
<td>5.10</td>
<td>1.16</td>
<td>Helping people with work-related problems &lt;&gt;</td>
</tr>
<tr>
<td>ERB5</td>
<td>4.88</td>
<td>1.67</td>
<td>Wandering around trying to look busy &lt;&gt;</td>
</tr>
<tr>
<td>ERB6</td>
<td>4.34</td>
<td>1.37</td>
<td>Volunteering to do work you are not required to do &lt;&gt;</td>
</tr>
<tr>
<td>ERB7</td>
<td>2.73</td>
<td>1.62</td>
<td>Working extra hard sometimes to make up for periods when you may have slacked off &lt;&gt;</td>
</tr>
<tr>
<td>ERB8</td>
<td>5.43</td>
<td>1.03</td>
<td>Making excuses to go somewhere to get out of work &lt;&gt;</td>
</tr>
<tr>
<td>ERB9</td>
<td>4.30</td>
<td>1.32</td>
<td>Helping others with work when they have been absent &lt;&gt;</td>
</tr>
<tr>
<td>ERB10</td>
<td>4.25</td>
<td>1.37</td>
<td>Helping people who have heavy workloads &lt;&gt;</td>
</tr>
<tr>
<td>ERB11</td>
<td>4.34</td>
<td>1.50</td>
<td>Helping customers or visitors if they need assistance even when not asked &lt;&gt;</td>
</tr>
<tr>
<td>ERB12</td>
<td>5.04</td>
<td>1.70</td>
<td>Doing as little work as possible &lt;&gt;</td>
</tr>
<tr>
<td><strong>Remain Intentions</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WTH1</td>
<td>2.91</td>
<td>1.54</td>
<td>I have occasionally thought about changing the department where I work &lt;&gt;</td>
</tr>
<tr>
<td>WTH2</td>
<td>1.75</td>
<td>1.20</td>
<td>I have deliberately tried to move to another area or department &lt;&gt;</td>
</tr>
<tr>
<td>WTH3</td>
<td>3.62</td>
<td>1.44</td>
<td>If I had a chance I will move to another area without further consideration &lt;&gt;</td>
</tr>
<tr>
<td>WTH4</td>
<td>2.56</td>
<td>1.45</td>
<td>I have occasionally thought about leaving the organization &lt;&gt;</td>
</tr>
<tr>
<td>WTH5</td>
<td>1.61</td>
<td>1.12</td>
<td>I have deliberately tried to move to another organization &lt;&gt;</td>
</tr>
<tr>
<td>WTH6</td>
<td>3.31</td>
<td>1.50</td>
<td>If I had a chance I will move to another organization &lt;&gt;</td>
</tr>
<tr>
<td>WTH7</td>
<td>2.35</td>
<td>1.10</td>
<td>It is my intention to remain in this organization no more than a month &lt;&gt;</td>
</tr>
<tr>
<td>WTH8</td>
<td>1.64</td>
<td>.99</td>
<td>It is my intention remain in my area or department no more than a month &lt;&gt;</td>
</tr>
</tbody>
</table>

*Note:* <> = Reverse scored items; = Straight scored items.
### Table A7.
Descriptive statistics for items in control variables

<table>
<thead>
<tr>
<th>Item</th>
<th>Mean</th>
<th>Std De</th>
<th>Label</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tenure</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BTENURE</td>
<td>2.71</td>
<td>1.20</td>
<td>Tenure in the organization</td>
</tr>
<tr>
<td>PTENURE</td>
<td>2.12</td>
<td>1.03</td>
<td>Tenure in present job position</td>
</tr>
<tr>
<td>Personal</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AGE</td>
<td>32.76</td>
<td>7.94</td>
<td>Year of birth (Age = 97 - year of birth)</td>
</tr>
<tr>
<td>RESTUDI</td>
<td>2.16</td>
<td>.62</td>
<td>Highest degree obtained (0=High School, 1=Technical, 2=Undergraduated, 3=Master and 4=Doctor)</td>
</tr>
</tbody>
</table>

### Table A8.
Frequencies for Empowering Interventions.

<table>
<thead>
<tr>
<th>Item</th>
<th>No</th>
<th></th>
<th>Yes</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total quality, continuous improvement approaches</td>
<td>82</td>
<td>35</td>
<td>154</td>
<td>65</td>
</tr>
<tr>
<td>Just in time systems, kanban</td>
<td>189</td>
<td>80</td>
<td>47</td>
<td>20</td>
</tr>
<tr>
<td>Programs for ISO9000 certification</td>
<td>115</td>
<td>49</td>
<td>121</td>
<td>51</td>
</tr>
<tr>
<td>Flexible manufacturing systems, manufacturing cells</td>
<td>195</td>
<td>83</td>
<td>41</td>
<td>17</td>
</tr>
<tr>
<td>Multifunctional teams</td>
<td>166</td>
<td>70</td>
<td>70</td>
<td>30</td>
</tr>
<tr>
<td>Re-engineering, process management</td>
<td>168</td>
<td>71</td>
<td>68</td>
<td>29</td>
</tr>
<tr>
<td>Excellence leadership, high performance leadership</td>
<td>140</td>
<td>59</td>
<td>96</td>
<td>41</td>
</tr>
<tr>
<td>Participative leadership, participation in d. making</td>
<td>152</td>
<td>64</td>
<td>84</td>
<td>36</td>
</tr>
<tr>
<td>Management by objectives</td>
<td>155</td>
<td>66</td>
<td>81</td>
<td>34</td>
</tr>
<tr>
<td>360 degree feedback</td>
<td>229</td>
<td>97</td>
<td>7</td>
<td>3</td>
</tr>
<tr>
<td>Excellence programs</td>
<td>158</td>
<td>67</td>
<td>78</td>
<td>33</td>
</tr>
<tr>
<td>Self directed teams</td>
<td>185</td>
<td>78</td>
<td>51</td>
<td>22</td>
</tr>
<tr>
<td>Matrix organization</td>
<td>222</td>
<td>94</td>
<td>14</td>
<td>6</td>
</tr>
<tr>
<td>Quality of working life</td>
<td>144</td>
<td>61</td>
<td>92</td>
<td>39</td>
</tr>
<tr>
<td>Training in team work, leadership, part. d. making</td>
<td>117</td>
<td>50</td>
<td>119</td>
<td>50</td>
</tr>
<tr>
<td>Other</td>
<td>224</td>
<td>95</td>
<td>12</td>
<td>5</td>
</tr>
</tbody>
</table>

### Table A9.
Frequencies for qualifiers of Empowering Interventions.

<table>
<thead>
<tr>
<th>Item</th>
<th>Mean</th>
<th>Std D</th>
<th>Label</th>
</tr>
</thead>
<tbody>
<tr>
<td>RESULTS1</td>
<td>3.46</td>
<td>1.49</td>
<td>How long has this approach been implemented?</td>
</tr>
<tr>
<td>RESULTS2</td>
<td>4.06</td>
<td>1.01</td>
<td>How high has managers commitment in implementing?</td>
</tr>
<tr>
<td>RESULTS3</td>
<td>4.04</td>
<td>.84</td>
<td>How beneficial has this approach been for organization?</td>
</tr>
<tr>
<td>RESULTS4</td>
<td>3.80</td>
<td>.88</td>
<td>How beneficial has this approach been for the employees?</td>
</tr>
</tbody>
</table>
### Appendix B: Results of factor analyses

#### Table B1. Varimax Rotated Factor Matrix for Task items.

<table>
<thead>
<tr>
<th></th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
</tr>
</thead>
<tbody>
<tr>
<td>TCH1</td>
<td>.83</td>
<td>.11</td>
<td>.15</td>
<td>.12</td>
<td>.01</td>
<td>.01</td>
<td>.03</td>
<td>.05</td>
<td>.00</td>
<td>.02</td>
<td>-.05</td>
<td>-.05</td>
</tr>
<tr>
<td>TCH3</td>
<td>.74</td>
<td>.34</td>
<td>.18</td>
<td>.12</td>
<td>-.07</td>
<td>.20</td>
<td>.07</td>
<td>.07</td>
<td>.15</td>
<td>-.03</td>
<td>.07</td>
<td>.04</td>
</tr>
<tr>
<td>TCH5</td>
<td>.70</td>
<td>.33</td>
<td>.16</td>
<td>.25</td>
<td>.01</td>
<td>.27</td>
<td>.06</td>
<td>-.02</td>
<td>.18</td>
<td>-.03</td>
<td>.11</td>
<td>-.01</td>
</tr>
<tr>
<td>TCH4</td>
<td>.61</td>
<td>.12</td>
<td>-.08</td>
<td>.01</td>
<td>.36</td>
<td>.18</td>
<td>-.04</td>
<td>.04</td>
<td>.07</td>
<td>.26</td>
<td>.09</td>
<td>.02</td>
</tr>
<tr>
<td>TCH2</td>
<td>.55</td>
<td>.30</td>
<td>.01</td>
<td>.25</td>
<td>.14</td>
<td>-.06</td>
<td>.10</td>
<td>.22</td>
<td>.08</td>
<td>.26</td>
<td>.06</td>
<td>.06</td>
</tr>
<tr>
<td>RAV2</td>
<td>.07</td>
<td>.81</td>
<td>.14</td>
<td>.17</td>
<td>.10</td>
<td>.04</td>
<td>-.02</td>
<td>-.07</td>
<td>.05</td>
<td>-.12</td>
<td>.02</td>
<td>.06</td>
</tr>
<tr>
<td>RAV6</td>
<td>.42</td>
<td>.72</td>
<td>.18</td>
<td>.17</td>
<td>.00</td>
<td>.15</td>
<td>.07</td>
<td>.01</td>
<td>.15</td>
<td>-.05</td>
<td>.04</td>
<td>-.04</td>
</tr>
<tr>
<td>RAV5</td>
<td>.17</td>
<td>.68</td>
<td>.15</td>
<td>.06</td>
<td>.09</td>
<td>.09</td>
<td>-.02</td>
<td>.16</td>
<td>.10</td>
<td>.27</td>
<td>.11</td>
<td>-.04</td>
</tr>
<tr>
<td>RAV4</td>
<td>.30</td>
<td>.65</td>
<td>-.09</td>
<td>.09</td>
<td>.21</td>
<td>.00</td>
<td>-.05</td>
<td>.18</td>
<td>-.01</td>
<td>.14</td>
<td>.05</td>
<td>-.09</td>
</tr>
<tr>
<td>SUP2</td>
<td>.39</td>
<td>.49</td>
<td>-.04</td>
<td>.32</td>
<td>.06</td>
<td>.21</td>
<td>-.04</td>
<td>.22</td>
<td>.00</td>
<td>-.07</td>
<td>.06</td>
<td>.01</td>
</tr>
<tr>
<td>TSE2</td>
<td>.04</td>
<td>.08</td>
<td>.78</td>
<td>.18</td>
<td>.07</td>
<td>.07</td>
<td>-.02</td>
<td>.11</td>
<td>.03</td>
<td>.04</td>
<td>.03</td>
<td>.18</td>
</tr>
<tr>
<td>TSE4</td>
<td>.05</td>
<td>.19</td>
<td>.72</td>
<td>.03</td>
<td>.05</td>
<td>.13</td>
<td>.09</td>
<td>.11</td>
<td>.17</td>
<td>-.02</td>
<td>.05</td>
<td>.14</td>
</tr>
<tr>
<td>TSE1</td>
<td>.21</td>
<td>-.03</td>
<td>.68</td>
<td>-.09</td>
<td>.07</td>
<td>-.12</td>
<td>.15</td>
<td>-.10</td>
<td>-.11</td>
<td>.18</td>
<td>.02</td>
<td>-.07</td>
</tr>
<tr>
<td>TSE3</td>
<td>-.01</td>
<td>.17</td>
<td>.65</td>
<td>.26</td>
<td>.18</td>
<td>.07</td>
<td>.07</td>
<td>.03</td>
<td>.21</td>
<td>.15</td>
<td>-.20</td>
<td>.03</td>
</tr>
<tr>
<td>TSE7</td>
<td>.12</td>
<td>.01</td>
<td>.49</td>
<td>-.13</td>
<td>.39</td>
<td>-.01</td>
<td>-.07</td>
<td>.23</td>
<td>.15</td>
<td>.16</td>
<td>-.10</td>
<td>.21</td>
</tr>
<tr>
<td>OTC4</td>
<td>.13</td>
<td>.05</td>
<td>.02</td>
<td>.82</td>
<td>.10</td>
<td>.20</td>
<td>-.00</td>
<td>.01</td>
<td>.02</td>
<td>.09</td>
<td>.13</td>
<td>-.02</td>
</tr>
<tr>
<td>OTC3</td>
<td>.18</td>
<td>.10</td>
<td>.21</td>
<td>.69</td>
<td>.12</td>
<td>-.01</td>
<td>.06</td>
<td>.29</td>
<td>.14</td>
<td>-.09</td>
<td>.04</td>
<td>.01</td>
</tr>
<tr>
<td>OTC1</td>
<td>.07</td>
<td>.23</td>
<td>.15</td>
<td>.63</td>
<td>.23</td>
<td>.06</td>
<td>.20</td>
<td>-.08</td>
<td>.14</td>
<td>.09</td>
<td>.01</td>
<td>.03</td>
</tr>
<tr>
<td>OTC2</td>
<td>.35</td>
<td>.40</td>
<td>.15</td>
<td>.62</td>
<td>.09</td>
<td>-.10</td>
<td>-.02</td>
<td>.19</td>
<td>.04</td>
<td>.15</td>
<td>-.10</td>
<td>.06</td>
</tr>
<tr>
<td>OTC5</td>
<td>.14</td>
<td>.37</td>
<td>.07</td>
<td>.47</td>
<td>.01</td>
<td>.37</td>
<td>-.13</td>
<td>-.01</td>
<td>.00</td>
<td>-.15</td>
<td>.01</td>
<td>.06</td>
</tr>
<tr>
<td>OTC8</td>
<td>-.02</td>
<td>.07</td>
<td>.16</td>
<td>.16</td>
<td>.82</td>
<td>.12</td>
<td>.03</td>
<td>.19</td>
<td>.11</td>
<td>-.03</td>
<td>.01</td>
<td>.05</td>
</tr>
<tr>
<td>OTC7</td>
<td>.07</td>
<td>.13</td>
<td>.06</td>
<td>.21</td>
<td>.81</td>
<td>.14</td>
<td>.04</td>
<td>-.01</td>
<td>.02</td>
<td>.21</td>
<td>.11</td>
<td>-.05</td>
</tr>
<tr>
<td>OTC6</td>
<td>.39</td>
<td>.30</td>
<td>.07</td>
<td>.14</td>
<td>.60</td>
<td>.06</td>
<td>-.09</td>
<td>.33</td>
<td>.03</td>
<td>-.13</td>
<td>-.02</td>
<td>.03</td>
</tr>
<tr>
<td>SUP5</td>
<td>.14</td>
<td>.11</td>
<td>.16</td>
<td>-.03</td>
<td>.13</td>
<td>.80</td>
<td>.05</td>
<td>.08</td>
<td>.02</td>
<td>-.01</td>
<td>.06</td>
<td>.10</td>
</tr>
<tr>
<td>SUP3</td>
<td>.29</td>
<td>.06</td>
<td>-.03</td>
<td>.31</td>
<td>.20</td>
<td>.61</td>
<td>.12</td>
<td>.32</td>
<td>-.01</td>
<td>.04</td>
<td>.01</td>
<td>.03</td>
</tr>
<tr>
<td>SUP4</td>
<td>.04</td>
<td>.10</td>
<td>.02</td>
<td>.46</td>
<td>.21</td>
<td>.57</td>
<td>.10</td>
<td>.03</td>
<td>.00</td>
<td>.17</td>
<td>.14</td>
<td>-.08</td>
</tr>
<tr>
<td>TMN5</td>
<td>.10</td>
<td>.00</td>
<td>.24</td>
<td>.12</td>
<td>.00</td>
<td>.04</td>
<td>.82</td>
<td>-.05</td>
<td>-.17</td>
<td>.05</td>
<td>.07</td>
<td>.14</td>
</tr>
<tr>
<td>TMN2</td>
<td>.02</td>
<td>-.08</td>
<td>.02</td>
<td>.00</td>
<td>.01</td>
<td>.07</td>
<td>.76</td>
<td>.12</td>
<td>.23</td>
<td>-.05</td>
<td>-.28</td>
<td>-.05</td>
</tr>
<tr>
<td>SUP1</td>
<td>.18</td>
<td>.10</td>
<td>.04</td>
<td>.14</td>
<td>.22</td>
<td>.18</td>
<td>.06</td>
<td>.73</td>
<td>.04</td>
<td>.10</td>
<td>.02</td>
<td>.02</td>
</tr>
<tr>
<td>RAV1</td>
<td>.12</td>
<td>.25</td>
<td>.07</td>
<td>.15</td>
<td>.03</td>
<td>.06</td>
<td>.19</td>
<td>.43</td>
<td>.22</td>
<td>.05</td>
<td>.14</td>
<td>-.06</td>
</tr>
<tr>
<td>TIM4</td>
<td>.15</td>
<td>.12</td>
<td>.19</td>
<td>.16</td>
<td>.04</td>
<td>-.05</td>
<td>-.04</td>
<td>-.03</td>
<td>.70</td>
<td>.18</td>
<td>.00</td>
<td>.33</td>
</tr>
<tr>
<td>RAV3</td>
<td>.16</td>
<td>.04</td>
<td>.37</td>
<td>.18</td>
<td>.17</td>
<td>.02</td>
<td>-.01</td>
<td>.12</td>
<td>.58</td>
<td>-.10</td>
<td>-.14</td>
<td>-.20</td>
</tr>
<tr>
<td>TIM1</td>
<td>.14</td>
<td>.24</td>
<td>-.05</td>
<td>.07</td>
<td>.14</td>
<td>.25</td>
<td>.16</td>
<td>.54</td>
<td>-.12</td>
<td>.39</td>
<td>-.13</td>
<td>-.07</td>
</tr>
<tr>
<td>TMN4</td>
<td>.12</td>
<td>-.01</td>
<td>.21</td>
<td>-.02</td>
<td>.07</td>
<td>-.01</td>
<td>.07</td>
<td>.04</td>
<td>-.01</td>
<td>.71</td>
<td>-.09</td>
<td>.14</td>
</tr>
<tr>
<td>TSE5</td>
<td>-.03</td>
<td>.11</td>
<td>.23</td>
<td>.00</td>
<td>.09</td>
<td>.09</td>
<td>-.11</td>
<td>.48</td>
<td>.05</td>
<td>.52</td>
<td>.08</td>
<td>-.11</td>
</tr>
<tr>
<td>TIM2</td>
<td>.07</td>
<td>.07</td>
<td>-.09</td>
<td>.09</td>
<td>.04</td>
<td>.06</td>
<td>-.11</td>
<td>-.02</td>
<td>.06</td>
<td>.06</td>
<td>.81</td>
<td>-.02</td>
</tr>
<tr>
<td>TSE6</td>
<td>-.03</td>
<td>.04</td>
<td>.36</td>
<td>-.03</td>
<td>.13</td>
<td>-.17</td>
<td>-.12</td>
<td>.33</td>
<td>-.16</td>
<td>.10</td>
<td>.54</td>
<td>-.02</td>
</tr>
<tr>
<td>TMN3</td>
<td>-.03</td>
<td>-.02</td>
<td>.07</td>
<td>-.03</td>
<td>.06</td>
<td>.03</td>
<td>.02</td>
<td>-.05</td>
<td>.00</td>
<td>.02</td>
<td>.06</td>
<td>.83</td>
</tr>
<tr>
<td>TIM5</td>
<td>.15</td>
<td>-.05</td>
<td>.39</td>
<td>-.16</td>
<td>.16</td>
<td>.10</td>
<td>.12</td>
<td>.09</td>
<td>.26</td>
<td>.08</td>
<td>.49</td>
<td>.04</td>
</tr>
<tr>
<td>TIM3</td>
<td>.01</td>
<td>-.02</td>
<td>.15</td>
<td>-.02</td>
<td>-.17</td>
<td>-.10</td>
<td>-.01</td>
<td>-.05</td>
<td>-.08</td>
<td>-.19</td>
<td>.08</td>
<td>.28</td>
</tr>
<tr>
<td>TMN1</td>
<td>.07</td>
<td>.08</td>
<td>-.07</td>
<td>.13</td>
<td>.04</td>
<td>.13</td>
<td>.44</td>
<td>.03</td>
<td>.17</td>
<td>.25</td>
<td>.13</td>
<td>-.11</td>
</tr>
</tbody>
</table>

**Note:** Main factor loads contributing to factors are shaded. Factor loads which absolute value differs by .10 or less than that with main factor load in the row are underlined.
Table B2.  
Final Statistics of Varimax Rotated Factor Matrix for Task items.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Communality</th>
<th>Factor</th>
<th>Eigenvalue</th>
<th>Pct of Var</th>
<th>Cum Pct</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSE1</td>
<td>.61826</td>
<td>1</td>
<td>9.94409</td>
<td>24.3</td>
<td>24.3</td>
</tr>
<tr>
<td>TSE2</td>
<td>.70731</td>
<td>2</td>
<td>3.10929</td>
<td>7.6</td>
<td>31.8</td>
</tr>
<tr>
<td>TSE3</td>
<td>.67755</td>
<td>3</td>
<td>2.19376</td>
<td>5.4</td>
<td>37.2</td>
</tr>
<tr>
<td>TSE4</td>
<td>.65841</td>
<td>4</td>
<td>2.09908</td>
<td>5.1</td>
<td>42.3</td>
</tr>
<tr>
<td>TSE5</td>
<td>.62096</td>
<td>5</td>
<td>1.72386</td>
<td>4.2</td>
<td>46.5</td>
</tr>
<tr>
<td>TSE6</td>
<td>.68027</td>
<td>6</td>
<td>1.51868</td>
<td>3.7</td>
<td>50.2</td>
</tr>
<tr>
<td>TSE7</td>
<td>.59103</td>
<td>7</td>
<td>1.42351</td>
<td>3.5</td>
<td>53.7</td>
</tr>
<tr>
<td>TMN1</td>
<td>.74724</td>
<td>8</td>
<td>1.29530</td>
<td>3.2</td>
<td>56.8</td>
</tr>
<tr>
<td>TMN2</td>
<td>.78041</td>
<td>9</td>
<td>1.16089</td>
<td>2.8</td>
<td>59.7</td>
</tr>
<tr>
<td>TMN3</td>
<td>.72652</td>
<td>10</td>
<td>1.10168</td>
<td>2.7</td>
<td>62.4</td>
</tr>
<tr>
<td>TMN4</td>
<td>.60724</td>
<td>11</td>
<td>1.05642</td>
<td>2.6</td>
<td>64.9</td>
</tr>
<tr>
<td>TMN5</td>
<td>.81507</td>
<td>12</td>
<td>1.02875</td>
<td>2.5</td>
<td>67.5</td>
</tr>
<tr>
<td>TCH1</td>
<td>.75316</td>
<td>13</td>
<td>1.00424</td>
<td>2.4</td>
<td>69.9</td>
</tr>
<tr>
<td>TCH2</td>
<td>.62447</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TCH3</td>
<td>.78997</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TCH4</td>
<td>.63439</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TCH5</td>
<td>.81213</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TIM1</td>
<td>.68323</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TIM2</td>
<td>.71395</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TIM3</td>
<td>.71881</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TIM4</td>
<td>.73328</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TIM5</td>
<td>.59343</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OTC1</td>
<td>.60822</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OTC2</td>
<td>.77900</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OTC3</td>
<td>.69420</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OTC4</td>
<td>.77710</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OTC5</td>
<td>.54062</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OTC6</td>
<td>.77300</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OTC7</td>
<td>.81052</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OTC8</td>
<td>.79950</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RAV1</td>
<td>.59483</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RAV2</td>
<td>.75492</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RAV3</td>
<td>.65700</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RAV4</td>
<td>.64033</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RAV5</td>
<td>.66993</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RAV6</td>
<td>.81350</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SUP1</td>
<td>.69385</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SUP2</td>
<td>.62072</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SUP3</td>
<td>.72997</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SUP4</td>
<td>.66231</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SUP5</td>
<td>.75289</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Communality = Proportion of variance explained by factors, Eigenvalue = Total variance explained by factor, Pct of Var = Percentage of variance accounted by the factor; Cum Pct = Cumulative percentage of variance accounted by factor.
Table B3. Varimax Rotated Factor Matrix for Job items.

<table>
<thead>
<tr>
<th>Item</th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
<th>Factor 4</th>
<th>Factor 5</th>
<th>Factor 6</th>
<th>Factor 7</th>
<th>Factor 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>OPP5</td>
<td>.78</td>
<td>.24</td>
<td>.16</td>
<td>.09</td>
<td>.04</td>
<td>.13</td>
<td>.18</td>
<td>.01</td>
</tr>
<tr>
<td>JMN4</td>
<td>.69</td>
<td>.07</td>
<td>-.04</td>
<td>.24</td>
<td>.12</td>
<td>.25</td>
<td>.13</td>
<td>-.07</td>
</tr>
<tr>
<td>OPP3</td>
<td>.68</td>
<td>.24</td>
<td>.22</td>
<td>.04</td>
<td>.03</td>
<td>.15</td>
<td>.07</td>
<td>-.08</td>
</tr>
<tr>
<td>OPP2</td>
<td>.68</td>
<td>.28</td>
<td>.20</td>
<td>.06</td>
<td>.12</td>
<td>.08</td>
<td>.16</td>
<td>.03</td>
</tr>
<tr>
<td>OPP4</td>
<td>.63</td>
<td>.08</td>
<td>.20</td>
<td>.09</td>
<td>.08</td>
<td>-.23</td>
<td>.42</td>
<td>.04</td>
</tr>
<tr>
<td>OPP1</td>
<td>.55</td>
<td>.22</td>
<td>.14</td>
<td>.16</td>
<td>.47</td>
<td>-.07</td>
<td>.22</td>
<td>.01</td>
</tr>
<tr>
<td>JMN5</td>
<td>.51</td>
<td>.12</td>
<td>.10</td>
<td>.41</td>
<td>.00</td>
<td>.29</td>
<td>-.13</td>
<td>-.10</td>
</tr>
<tr>
<td>ALG4</td>
<td>.44</td>
<td>.15</td>
<td>.22</td>
<td>.06</td>
<td>.41</td>
<td>-.10</td>
<td>.43</td>
<td>.23</td>
</tr>
<tr>
<td>RES2</td>
<td>.16</td>
<td>.77</td>
<td>.12</td>
<td>-.01</td>
<td>.12</td>
<td>.06</td>
<td>-.02</td>
<td>.20</td>
</tr>
<tr>
<td>RES3</td>
<td>.15</td>
<td>.76</td>
<td>.15</td>
<td>.11</td>
<td>.16</td>
<td>.02</td>
<td>.23</td>
<td>-.02</td>
</tr>
<tr>
<td>RES1</td>
<td>.19</td>
<td>.68</td>
<td>.26</td>
<td>.11</td>
<td>.14</td>
<td>.01</td>
<td>-.07</td>
<td>.07</td>
</tr>
<tr>
<td>RES4</td>
<td>.19</td>
<td>.65</td>
<td>.02</td>
<td>.05</td>
<td>.14</td>
<td>.28</td>
<td>.13</td>
<td>-.04</td>
</tr>
<tr>
<td>JSE4</td>
<td>.26</td>
<td>.63</td>
<td>.17</td>
<td>.06</td>
<td>.03</td>
<td>-.02</td>
<td>.27</td>
<td>.28</td>
</tr>
<tr>
<td>JIM4</td>
<td>.17</td>
<td>.21</td>
<td>.76</td>
<td>.12</td>
<td>.18</td>
<td>-.02</td>
<td>.10</td>
<td>.01</td>
</tr>
<tr>
<td>JIM2</td>
<td>.09</td>
<td>.14</td>
<td>.74</td>
<td>-.01</td>
<td>.32</td>
<td>-.08</td>
<td>.13</td>
<td>.07</td>
</tr>
<tr>
<td>JIM1</td>
<td>.11</td>
<td>.27</td>
<td>.70</td>
<td>.10</td>
<td>.27</td>
<td>.09</td>
<td>.22</td>
<td>-.02</td>
</tr>
<tr>
<td>JIM5</td>
<td>.31</td>
<td>.01</td>
<td>.68</td>
<td>.08</td>
<td>-.02</td>
<td>.35</td>
<td>.05</td>
<td>-.03</td>
</tr>
<tr>
<td>JIM3</td>
<td>.24</td>
<td>.15</td>
<td>.60</td>
<td>.12</td>
<td>.09</td>
<td>.43</td>
<td>.12</td>
<td>-.09</td>
</tr>
<tr>
<td>JMN2</td>
<td>.26</td>
<td>.01</td>
<td>.03</td>
<td>.82</td>
<td>.10</td>
<td>.06</td>
<td>.12</td>
<td>.17</td>
</tr>
<tr>
<td>JMN3</td>
<td>.12</td>
<td>.04</td>
<td>.09</td>
<td>.81</td>
<td>.07</td>
<td>-.03</td>
<td>-.01</td>
<td>.20</td>
</tr>
<tr>
<td>JMN1</td>
<td>.11</td>
<td>.16</td>
<td>.09</td>
<td>.81</td>
<td>.19</td>
<td>-.05</td>
<td>.18</td>
<td>.06</td>
</tr>
<tr>
<td>JCH2</td>
<td>.12</td>
<td>.04</td>
<td>.16</td>
<td>.10</td>
<td>.81</td>
<td>.10</td>
<td>.02</td>
<td>.07</td>
</tr>
<tr>
<td>JCH1</td>
<td>.06</td>
<td>.20</td>
<td>.17</td>
<td>.13</td>
<td>.81</td>
<td>.07</td>
<td>.07</td>
<td>.07</td>
</tr>
<tr>
<td>JCH3</td>
<td>.11</td>
<td>.33</td>
<td>.38</td>
<td>.13</td>
<td>.60</td>
<td>.13</td>
<td>.09</td>
<td>.03</td>
</tr>
<tr>
<td>JSE5</td>
<td>-.04</td>
<td>-.09</td>
<td>-.13</td>
<td>-.01</td>
<td>.06</td>
<td>.67</td>
<td>.08</td>
<td>.29</td>
</tr>
<tr>
<td>RES5</td>
<td>.14</td>
<td>.15</td>
<td>.35</td>
<td>-.04</td>
<td>.00</td>
<td>.61</td>
<td>-.03</td>
<td>.10</td>
</tr>
<tr>
<td>JCH5</td>
<td>.41</td>
<td>.30</td>
<td>.25</td>
<td>.03</td>
<td>.24</td>
<td>.48</td>
<td>.06</td>
<td>.01</td>
</tr>
<tr>
<td>JCH4</td>
<td>.43</td>
<td>.23</td>
<td>.20</td>
<td>.21</td>
<td>.28</td>
<td>.47</td>
<td>.08</td>
<td>-.10</td>
</tr>
<tr>
<td>ALG5</td>
<td>.20</td>
<td>.33</td>
<td>.25</td>
<td>-.06</td>
<td>.09</td>
<td>.44</td>
<td>.43</td>
<td>-.04</td>
</tr>
<tr>
<td>ALG2</td>
<td>.22</td>
<td>.31</td>
<td>.04</td>
<td>.03</td>
<td>-.01</td>
<td>.33</td>
<td>.24</td>
<td>.11</td>
</tr>
<tr>
<td>ALG3</td>
<td>.17</td>
<td>.13</td>
<td>.16</td>
<td>.06</td>
<td>.08</td>
<td>.09</td>
<td>.79</td>
<td>-.02</td>
</tr>
<tr>
<td>ALG1</td>
<td>.22</td>
<td>.09</td>
<td>.11</td>
<td>.18</td>
<td>.07</td>
<td>.11</td>
<td>.76</td>
<td>-.07</td>
</tr>
<tr>
<td>JSE1</td>
<td>-.07</td>
<td>.13</td>
<td>-.05</td>
<td>.10</td>
<td>.08</td>
<td>.15</td>
<td>.00</td>
<td></td>
</tr>
<tr>
<td>JSE3</td>
<td>.05</td>
<td>.11</td>
<td>-.05</td>
<td>.10</td>
<td>.08</td>
<td>.03</td>
<td>-.11</td>
<td></td>
</tr>
<tr>
<td>JSE2</td>
<td>-.14</td>
<td>.05</td>
<td>.18</td>
<td>.42</td>
<td>-.03</td>
<td>.12</td>
<td>.12</td>
<td></td>
</tr>
</tbody>
</table>

Note: Main factor loads contributing to factors are shaded. Factor loads which absolute value differs by .10 or less than that with main factor load in the row are underlined.
<table>
<thead>
<tr>
<th>Variable</th>
<th>Communalily</th>
<th>Factor</th>
<th>Eigenvalue</th>
<th>Pct of Var</th>
<th>Cum Pct</th>
</tr>
</thead>
<tbody>
<tr>
<td>JSE1</td>
<td>.68559</td>
<td>1</td>
<td>10.80098</td>
<td>30.9</td>
<td>30.9</td>
</tr>
<tr>
<td>JSE2</td>
<td>.62983</td>
<td>2</td>
<td>2.63587</td>
<td>7.5</td>
<td>38.4</td>
</tr>
<tr>
<td>JSE3</td>
<td>.62657</td>
<td>3</td>
<td>2.22037</td>
<td>6.3</td>
<td>44.7</td>
</tr>
<tr>
<td>JSE4</td>
<td>.64770</td>
<td>4</td>
<td>1.97186</td>
<td>5.6</td>
<td>50.4</td>
</tr>
<tr>
<td>JSE5</td>
<td>.57727</td>
<td>5</td>
<td>1.76766</td>
<td>5.1</td>
<td>55.4</td>
</tr>
<tr>
<td>JMN1</td>
<td>.77042</td>
<td>6</td>
<td>1.39759</td>
<td>4.0</td>
<td>59.4</td>
</tr>
<tr>
<td>JMN2</td>
<td>.79246</td>
<td>7</td>
<td>1.26960</td>
<td>3.6</td>
<td>63.0</td>
</tr>
<tr>
<td>JMN3</td>
<td>.72616</td>
<td>8</td>
<td>1.00006</td>
<td>2.9</td>
<td>65.9</td>
</tr>
<tr>
<td>JMN4</td>
<td>.63481</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>JMN5</td>
<td>.55297</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>JCH1</td>
<td>.75742</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>JCH2</td>
<td>.72694</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>JCH3</td>
<td>.67372</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>JCH4</td>
<td>.64007</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>JCH5</td>
<td>.61339</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>JIM1</td>
<td>.71983</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>JIM2</td>
<td>.69945</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>JIM3</td>
<td>.67397</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>JIM4</td>
<td>.71115</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>JIM5</td>
<td>.68323</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OPP1</td>
<td>.67442</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OPP2</td>
<td>.62891</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OPP3</td>
<td>.60283</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OPP4</td>
<td>.68774</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OPP5</td>
<td>.75732</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ALG1</td>
<td>.69400</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ALG2</td>
<td>.33295</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ALG3</td>
<td>.72119</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ALG4</td>
<td>.67867</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ALG5</td>
<td>.60693</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RES1</td>
<td>.60390</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RES2</td>
<td>.69231</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RES3</td>
<td>.71435</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RES4</td>
<td>.57556</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RES5</td>
<td>.54994</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Communality = Proportion of variance explained by factors, Eigenvalue = Total variance explained by factor, Pct of Var = Percentage of variance accounted by the factor; Cum Pct = Cumulative percentage of variance accounted by factor.
### Table B5.
Varimax Rotated Factor Matrix for task-outcome items.

<table>
<thead>
<tr>
<th>Item</th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
<th>Factor 4</th>
<th>Factor 5</th>
<th>Factor 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>MOD3</td>
<td>.83</td>
<td>.18</td>
<td>.11</td>
<td>.13</td>
<td>.21</td>
<td>-.03</td>
</tr>
<tr>
<td>MOD4</td>
<td>.61</td>
<td>.16</td>
<td>.17</td>
<td>.15</td>
<td>.22</td>
<td>-.03</td>
</tr>
<tr>
<td>MOD5</td>
<td>.79</td>
<td>.11</td>
<td>.19</td>
<td>.19</td>
<td>.18</td>
<td>-.02</td>
</tr>
<tr>
<td>MOD2</td>
<td>.77</td>
<td>.16</td>
<td>-.01</td>
<td>.24</td>
<td>.07</td>
<td>.08</td>
</tr>
<tr>
<td>MOD1</td>
<td>.73</td>
<td>.20</td>
<td>.24</td>
<td>.18</td>
<td>.19</td>
<td>.08</td>
</tr>
<tr>
<td>IN2</td>
<td>.54</td>
<td>.48</td>
<td>.10</td>
<td>.27</td>
<td>-.06</td>
<td>.06</td>
</tr>
<tr>
<td>TIN8</td>
<td>.52</td>
<td>-.14</td>
<td>-.08</td>
<td>.25</td>
<td>.45</td>
<td>.12</td>
</tr>
<tr>
<td>RSL2</td>
<td>.29</td>
<td>.77</td>
<td>-.01</td>
<td>.17</td>
<td>-.04</td>
<td>.09</td>
</tr>
<tr>
<td>EFF1</td>
<td>.06</td>
<td>.75</td>
<td>.28</td>
<td>.01</td>
<td>.04</td>
<td>.06</td>
</tr>
<tr>
<td>EFF2</td>
<td>.27</td>
<td>.72</td>
<td>.06</td>
<td>.34</td>
<td>-.09</td>
<td>-.10</td>
</tr>
<tr>
<td>IN11</td>
<td>.00</td>
<td>.62</td>
<td>-.07</td>
<td>.07</td>
<td>.20</td>
<td>.12</td>
</tr>
<tr>
<td>RSL1</td>
<td>.09</td>
<td>.43</td>
<td>.41</td>
<td>-.05</td>
<td>.13</td>
<td>.15</td>
</tr>
<tr>
<td>MOD10</td>
<td>.16</td>
<td>.05</td>
<td>.80</td>
<td>-.06</td>
<td>.11</td>
<td>-.11</td>
</tr>
<tr>
<td>MOD8</td>
<td>.19</td>
<td>.07</td>
<td>.79</td>
<td>.09</td>
<td>.03</td>
<td>.14</td>
</tr>
<tr>
<td>MOD7</td>
<td>.16</td>
<td>.09</td>
<td>.79</td>
<td>.08</td>
<td>-.16</td>
<td>.14</td>
</tr>
<tr>
<td>MOD9</td>
<td>-.19</td>
<td>-.07</td>
<td>.55</td>
<td>.24</td>
<td>.12</td>
<td>-.34</td>
</tr>
<tr>
<td>ACH2</td>
<td>.27</td>
<td>.37</td>
<td>.40</td>
<td>.11</td>
<td>.23</td>
<td>-.06</td>
</tr>
<tr>
<td>TIN2</td>
<td>.23</td>
<td>.24</td>
<td>.05</td>
<td>.75</td>
<td>.13</td>
<td>.06</td>
</tr>
<tr>
<td>TIN1</td>
<td>.15</td>
<td>.11</td>
<td>.11</td>
<td>.75</td>
<td>.01</td>
<td>.06</td>
</tr>
<tr>
<td>TIN3</td>
<td>.24</td>
<td>.02</td>
<td>.03</td>
<td>.65</td>
<td>.32</td>
<td>.15</td>
</tr>
<tr>
<td>TIN4</td>
<td>.39</td>
<td>.22</td>
<td>.08</td>
<td>.63</td>
<td>.17</td>
<td>-.12</td>
</tr>
<tr>
<td>TIN6</td>
<td>.40</td>
<td>-.05</td>
<td>.03</td>
<td>.26</td>
<td>.65</td>
<td>.16</td>
</tr>
<tr>
<td>TIN5</td>
<td>.39</td>
<td>.08</td>
<td>.00</td>
<td>.48</td>
<td>.58</td>
<td>-.02</td>
</tr>
<tr>
<td>TIN7</td>
<td>.24</td>
<td>.25</td>
<td>.33</td>
<td>-.04</td>
<td>.56</td>
<td>-.06</td>
</tr>
<tr>
<td>TIN9</td>
<td>.14</td>
<td>.37</td>
<td>-.05</td>
<td>.34</td>
<td>.47</td>
<td>.04</td>
</tr>
<tr>
<td>ACH1</td>
<td>.10</td>
<td>.18</td>
<td>-.08</td>
<td>.04</td>
<td>.14</td>
<td>-.07</td>
</tr>
<tr>
<td>MOD6</td>
<td>-.12</td>
<td>.01</td>
<td>.44</td>
<td>.17</td>
<td>-.07</td>
<td>.00</td>
</tr>
</tbody>
</table>

*Note: Main factor loads contributing to factors are shaded. Factor loads which absolute value differs by .10 or less than that with main factor load in the row are underlined.*
### Table B6.
Final Statistics of Varimax Rotated Factor Matrix for task-outcome items.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Communality</th>
<th>Factor</th>
<th>Eigenvalue</th>
<th>Pct of Var</th>
<th>Cum Pct</th>
</tr>
</thead>
<tbody>
<tr>
<td>MOD1</td>
<td>.70334</td>
<td>1</td>
<td>8.52423</td>
<td>31.6</td>
<td>31.6</td>
</tr>
<tr>
<td>MOD2</td>
<td>.68184</td>
<td>2</td>
<td>2.79670</td>
<td>10.4</td>
<td>41.9</td>
</tr>
<tr>
<td>MOD3</td>
<td>.79336</td>
<td>3</td>
<td>2.02060</td>
<td>7.5</td>
<td>49.4</td>
</tr>
<tr>
<td>MOD4</td>
<td>.78574</td>
<td>4</td>
<td>1.53494</td>
<td>5.7</td>
<td>55.1</td>
</tr>
<tr>
<td>MOD5</td>
<td>.74959</td>
<td>5</td>
<td>1.20339</td>
<td>4.5</td>
<td>59.6</td>
</tr>
<tr>
<td>MOD6</td>
<td>.64279</td>
<td>6</td>
<td>1.01429</td>
<td>3.8</td>
<td>63.3</td>
</tr>
<tr>
<td>MOD7</td>
<td>.70024</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MOD8</td>
<td>.70190</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MOD9</td>
<td>.51741</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MOD10</td>
<td>.66675</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TIN1</td>
<td>.59404</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TIN2</td>
<td>.68862</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TIN3</td>
<td>.61235</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TIN4</td>
<td>.64084</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TIN5</td>
<td>.70084</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TIN6</td>
<td>.66236</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TIN7</td>
<td>.52740</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TIN8</td>
<td>.56688</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TIN9</td>
<td>.50886</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACH1</td>
<td>.60294</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACH2</td>
<td>.46501</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EFF1</td>
<td>.63204</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EFF2</td>
<td>.73266</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>INI1</td>
<td>.41042</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>INI2</td>
<td>.61930</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RSL1</td>
<td>.48715</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RSL2</td>
<td>.69950</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note:** Communality = Proportion of variance explained by factors, Eigenvalue = Total variance explained by factor, Pct of Var = Percentage of variance accounted by the factor; Cum Pct = Cumulative percentage of variance accounted by factor.
Table B7. Varimax Rotated Factor Matrix for job-outcomes items.

<table>
<thead>
<tr>
<th>Item</th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
<th>Factor 4</th>
<th>Factor 5</th>
<th>Factor 6</th>
<th>Factor 7</th>
<th>Factor 8</th>
<th>Factor 9</th>
</tr>
</thead>
<tbody>
<tr>
<td>JST10</td>
<td>0.85</td>
<td>0.00</td>
<td>0.13</td>
<td>0.08</td>
<td>0.10</td>
<td>0.05</td>
<td>-0.08</td>
<td>0.03</td>
<td>0.02</td>
</tr>
<tr>
<td>JST7</td>
<td>0.79</td>
<td>0.08</td>
<td>0.03</td>
<td>0.15</td>
<td>0.02</td>
<td>0.05</td>
<td>0.06</td>
<td>0.02</td>
<td>0.06</td>
</tr>
<tr>
<td>JST6</td>
<td>0.79</td>
<td>-0.02</td>
<td>0.16</td>
<td>0.06</td>
<td>0.03</td>
<td>0.15</td>
<td>-0.10</td>
<td>-0.02</td>
<td>-0.04</td>
</tr>
<tr>
<td>JST9</td>
<td>0.78</td>
<td>0.09</td>
<td>0.17</td>
<td>0.06</td>
<td>0.07</td>
<td>0.03</td>
<td>-0.01</td>
<td>0.03</td>
<td>-0.03</td>
</tr>
<tr>
<td>JST3</td>
<td>0.76</td>
<td>0.07</td>
<td>0.19</td>
<td>0.12</td>
<td>0.19</td>
<td>-0.04</td>
<td>0.03</td>
<td>0.05</td>
<td>-0.06</td>
</tr>
<tr>
<td>JST5</td>
<td>0.73</td>
<td>-0.02</td>
<td>-0.10</td>
<td>0.08</td>
<td>0.05</td>
<td>0.03</td>
<td>-0.06</td>
<td>0.12</td>
<td>0.01</td>
</tr>
<tr>
<td>JST1</td>
<td>0.71</td>
<td>-0.10</td>
<td>0.11</td>
<td>0.09</td>
<td>0.15</td>
<td>0.04</td>
<td>0.19</td>
<td>-0.04</td>
<td>0.17</td>
</tr>
<tr>
<td>JST8</td>
<td>0.71</td>
<td>-0.07</td>
<td>0.20</td>
<td>0.13</td>
<td>0.16</td>
<td>0.13</td>
<td>0.06</td>
<td>0.04</td>
<td>0.25</td>
</tr>
<tr>
<td>JST2</td>
<td>0.69</td>
<td>0.04</td>
<td>0.29</td>
<td>0.15</td>
<td>0.09</td>
<td>0.21</td>
<td>-0.07</td>
<td>0.03</td>
<td>0.07</td>
</tr>
<tr>
<td>JST4</td>
<td>0.65</td>
<td>0.05</td>
<td>0.03</td>
<td>0.04</td>
<td>0.09</td>
<td>0.15</td>
<td>0.10</td>
<td>-0.03</td>
<td>-0.24</td>
</tr>
<tr>
<td>OCO2</td>
<td>0.59</td>
<td>0.20</td>
<td>0.33</td>
<td>0.28</td>
<td>0.15</td>
<td>0.29</td>
<td>0.04</td>
<td>-0.04</td>
<td>-0.12</td>
</tr>
<tr>
<td>ERB9</td>
<td>0.06</td>
<td>0.80</td>
<td>-0.07</td>
<td>0.10</td>
<td>0.04</td>
<td>-0.02</td>
<td>0.00</td>
<td>-0.04</td>
<td>0.12</td>
</tr>
<tr>
<td>ERB10</td>
<td>0.10</td>
<td>0.80</td>
<td>-0.04</td>
<td>0.09</td>
<td>0.03</td>
<td>-0.09</td>
<td>0.23</td>
<td>-0.02</td>
<td>0.08</td>
</tr>
<tr>
<td>ERB11</td>
<td>-0.06</td>
<td>0.67</td>
<td>0.06</td>
<td>-0.11</td>
<td>-0.06</td>
<td>0.03</td>
<td>0.05</td>
<td>0.14</td>
<td>-0.02</td>
</tr>
<tr>
<td>ERB4</td>
<td>0.03</td>
<td>0.57</td>
<td>0.01</td>
<td>0.22</td>
<td>0.02</td>
<td>-0.10</td>
<td>0.44</td>
<td>-0.11</td>
<td>0.00</td>
</tr>
<tr>
<td>ERB6</td>
<td>0.00</td>
<td>0.56</td>
<td>-0.10</td>
<td>0.02</td>
<td>0.04</td>
<td>0.12</td>
<td>0.20</td>
<td>-0.17</td>
<td>-0.38</td>
</tr>
<tr>
<td>WTH8</td>
<td>-0.25</td>
<td>0.07</td>
<td>0.80</td>
<td>0.15</td>
<td>0.13</td>
<td>0.12</td>
<td>0.05</td>
<td>0.09</td>
<td>0.13</td>
</tr>
<tr>
<td>WTH7</td>
<td>-0.23</td>
<td>0.15</td>
<td>0.73</td>
<td>0.02</td>
<td>0.15</td>
<td>-0.04</td>
<td>0.04</td>
<td>0.09</td>
<td>0.15</td>
</tr>
<tr>
<td>WTH4</td>
<td>0.28</td>
<td>0.17</td>
<td>0.63</td>
<td>0.17</td>
<td>0.26</td>
<td>0.16</td>
<td>-0.07</td>
<td>0.01</td>
<td>-0.19</td>
</tr>
<tr>
<td>WTH6</td>
<td>0.28</td>
<td>0.09</td>
<td>0.48</td>
<td>0.23</td>
<td>0.30</td>
<td>0.07</td>
<td>-0.20</td>
<td>0.10</td>
<td>-0.36</td>
</tr>
<tr>
<td>WTH5</td>
<td>0.32</td>
<td>0.03</td>
<td>0.47</td>
<td>0.10</td>
<td>0.41</td>
<td>0.34</td>
<td>-0.06</td>
<td>0.08</td>
<td>0.06</td>
</tr>
<tr>
<td>OCO8</td>
<td>0.06</td>
<td>0.14</td>
<td>0.03</td>
<td>0.70</td>
<td>0.22</td>
<td>0.17</td>
<td>0.01</td>
<td>0.22</td>
<td>0.17</td>
</tr>
<tr>
<td>OCO10</td>
<td>0.23</td>
<td>0.06</td>
<td>0.11</td>
<td>0.61</td>
<td>0.04</td>
<td>0.09</td>
<td>0.18</td>
<td>-0.06</td>
<td>-0.08</td>
</tr>
<tr>
<td>OCO4</td>
<td>0.12</td>
<td>-0.04</td>
<td>0.16</td>
<td>0.60</td>
<td>-0.20</td>
<td>-0.12</td>
<td>-0.16</td>
<td>0.06</td>
<td>-0.06</td>
</tr>
<tr>
<td>OCO6</td>
<td>0.20</td>
<td>0.00</td>
<td>0.05</td>
<td>0.60</td>
<td>0.25</td>
<td>0.03</td>
<td>-0.17</td>
<td>0.31</td>
<td>0.19</td>
</tr>
<tr>
<td>OCO1</td>
<td>0.30</td>
<td>0.12</td>
<td>0.20</td>
<td>0.53</td>
<td>0.00</td>
<td>0.22</td>
<td>0.18</td>
<td>-0.18</td>
<td>0.03</td>
</tr>
<tr>
<td>OCO9</td>
<td>0.34</td>
<td>-0.05</td>
<td>-0.14</td>
<td>0.44</td>
<td>0.21</td>
<td>0.38</td>
<td>0.00</td>
<td>-0.26</td>
<td>-0.10</td>
</tr>
<tr>
<td>WTH1</td>
<td>0.14</td>
<td>0.09</td>
<td>0.21</td>
<td>0.10</td>
<td>0.73</td>
<td>-0.01</td>
<td>0.05</td>
<td>0.07</td>
<td>-0.06</td>
</tr>
<tr>
<td>WTH2</td>
<td>0.30</td>
<td>-0.09</td>
<td>0.17</td>
<td>0.13</td>
<td>0.69</td>
<td>0.12</td>
<td>0.06</td>
<td>-10.10</td>
<td>0.13</td>
</tr>
<tr>
<td>WTH3</td>
<td>-0.13</td>
<td>0.05</td>
<td>0.23</td>
<td>0.00</td>
<td>0.63</td>
<td>-0.03</td>
<td>-0.19</td>
<td>0.03</td>
<td>-0.37</td>
</tr>
<tr>
<td>OCO5</td>
<td>0.14</td>
<td>0.10</td>
<td>-0.02</td>
<td>-2.48</td>
<td>-0.43</td>
<td>-0.09</td>
<td>0.27</td>
<td>0.99</td>
<td>0.99</td>
</tr>
<tr>
<td>ERB8</td>
<td>0.09</td>
<td>-0.10</td>
<td>0.02</td>
<td>-0.18</td>
<td>-0.69</td>
<td>-0.06</td>
<td>0.19</td>
<td>-0.16</td>
<td>-0.16</td>
</tr>
<tr>
<td>OCO7</td>
<td>0.31</td>
<td>-0.13</td>
<td>0.17</td>
<td>0.09</td>
<td>0.28</td>
<td>0.62</td>
<td>0.14</td>
<td>-0.16</td>
<td>0.15</td>
</tr>
<tr>
<td>ERB5</td>
<td>0.12</td>
<td>0.01</td>
<td>0.11</td>
<td>0.02</td>
<td>-0.10</td>
<td>0.61</td>
<td>-0.02</td>
<td>0.54</td>
<td>0.05</td>
</tr>
<tr>
<td>OCO3</td>
<td>0.17</td>
<td>-0.05</td>
<td>0.13</td>
<td>0.15</td>
<td>0.28</td>
<td>0.60</td>
<td>-0.01</td>
<td>-0.02</td>
<td>0.12</td>
</tr>
<tr>
<td>ERB1</td>
<td>0.04</td>
<td>0.11</td>
<td>0.02</td>
<td>0.00</td>
<td>-0.05</td>
<td>-0.08</td>
<td>0.79</td>
<td>0.16</td>
<td>-0.09</td>
</tr>
<tr>
<td>ERB2</td>
<td>0.01</td>
<td>0.29</td>
<td>-0.04</td>
<td>-0.04</td>
<td>0.00</td>
<td>0.08</td>
<td>0.65</td>
<td>0.00</td>
<td>0.12</td>
</tr>
<tr>
<td>ERB12</td>
<td>0.10</td>
<td>-0.02</td>
<td>0.10</td>
<td>0.10</td>
<td>0.08</td>
<td>0.04</td>
<td>0.08</td>
<td>0.71</td>
<td>-0.03</td>
</tr>
<tr>
<td>ERB7</td>
<td>0.09</td>
<td>0.44</td>
<td>0.07</td>
<td>-0.03</td>
<td>0.03</td>
<td>-0.20</td>
<td>-0.22</td>
<td>-0.46</td>
<td>0.08</td>
</tr>
<tr>
<td>ERB3</td>
<td>0.01</td>
<td>0.35</td>
<td>0.24</td>
<td>0.18</td>
<td>-0.06</td>
<td>0.13</td>
<td>0.01</td>
<td>-0.07</td>
<td>0.52</td>
</tr>
</tbody>
</table>

Note: Main factor loads contributing to factors are shaded. Factor loads which absolute value differs by .10 or less than that with main factor load in the row are underlined.
Table B8.
Final Statistics of Varimax Rotated Factor Matrix for job-outcome items.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Communality</th>
<th>Factor</th>
<th>Eigenvalue</th>
<th>Pct of Var</th>
<th>Cum Pct</th>
</tr>
</thead>
<tbody>
<tr>
<td>JST1</td>
<td>.62639</td>
<td>1</td>
<td>10.11895</td>
<td>25.3</td>
<td>25.3</td>
</tr>
<tr>
<td>JST2</td>
<td>.64521</td>
<td>2</td>
<td>3.51472</td>
<td>8.8</td>
<td>34.1</td>
</tr>
<tr>
<td>JST3</td>
<td>.67952</td>
<td>3</td>
<td>2.36672</td>
<td>5.9</td>
<td>40.0</td>
</tr>
<tr>
<td>JST4</td>
<td>.52467</td>
<td>4</td>
<td>2.03444</td>
<td>5.1</td>
<td>45.1</td>
</tr>
<tr>
<td>JST5</td>
<td>.56507</td>
<td>5</td>
<td>1.75922</td>
<td>4.4</td>
<td>49.5</td>
</tr>
<tr>
<td>JST6</td>
<td>.68361</td>
<td>6</td>
<td>1.47534</td>
<td>3.7</td>
<td>53.2</td>
</tr>
<tr>
<td>JST7</td>
<td>.66166</td>
<td>7</td>
<td>1.30213</td>
<td>3.3</td>
<td>56.4</td>
</tr>
<tr>
<td>JST8</td>
<td>.67069</td>
<td>8</td>
<td>1.25574</td>
<td>3.1</td>
<td>59.6</td>
</tr>
<tr>
<td>JST9</td>
<td>.65947</td>
<td>9</td>
<td>1.06027</td>
<td>2.7</td>
<td>62.2</td>
</tr>
<tr>
<td>JST10</td>
<td>.73339</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WTH1</td>
<td>.61967</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WTH2</td>
<td>.66677</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WTH3</td>
<td>.64707</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WTH4</td>
<td>.67228</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WTH5</td>
<td>.62890</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WTH6</td>
<td>.66720</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WTH7</td>
<td>.66533</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WTH8</td>
<td>.78281</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ERB1</td>
<td>.67807</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ERB2</td>
<td>.53225</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ERB3</td>
<td>.50870</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ERB4</td>
<td>.59427</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ERB5</td>
<td>.70502</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ERB6</td>
<td>.55063</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ERB7</td>
<td>.52029</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ERB8</td>
<td>.59442</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ERB9</td>
<td>.68253</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ERB10</td>
<td>.73160</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ERB11</td>
<td>.49339</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ERB12</td>
<td>.55514</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OCO1</td>
<td>.53914</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OCO2</td>
<td>.69671</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OCO3</td>
<td>.51925</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OCO4</td>
<td>.48865</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OCO5</td>
<td>.59285</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OCO6</td>
<td>.62981</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OCO7</td>
<td>.67721</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OCO8</td>
<td>.66781</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OCO9</td>
<td>.59746</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OCO10</td>
<td>.49265</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Communality = Proportion of variance explained by factors, Eigenvalue = Total variance explained by factor, Pct of Var = Percentage of variance accounted by the factor; Cum Pct = Cumulative percentage of variance accounted by factor.
References


   Working paper. University of Richmond. Richmond, VA.

Eyring, J.D., Johnson, D.S., & Francis, D.J. (1993). A cross-level units-of-analysis approach

and an anxiety-based model of avoidance behavior. Journal of Personality and Social
Psychology, 42, 764-781.

their jobs and how it affects their performance, 165-194, New York: NY, Lexington
Books/ Macmillan, Inc.

Management Executive, 9, 21-31.


Journal of Managerial Issues, 7, 161-175.

Garcia, T. & Pintrich, P. R. (1991, August). The effects of autonomy on motivation, use of
learning strategies, and performance in the college classroom. Paper presented in a
symposium, “Teaching knowledge, learning strategies, and motivation” at the 99th
annual meeting of the American Psychological Association, San Francisco, CA.

management. Academy of Management review, 12, 472-485.


self-efficacy and performance in computer software training. *Journal of Applied
Psychology, 74*, 884-891.

intervention on the acquisition and maintenance of complex interpersonal skills.
*Personnel Psychology, 44*, 837-861.


Hackett, G., & Betz, NE (1981). A self-efficacy approach to the career development of

Hackman, J. R. (1986). The psychology of self-management in organizations. In M. S. Pallack
& R. O. Perloff (Eds.); *Psychology and work: Productivity; change; and employment* (pp.

for effective teamwork*. San Francisco, CA, Jossey-Boss Publishers

enrichment. In M. T. Matteson & J. M. Ivancevich (Eds.), *Management and organizational
behavior classics* (pp. 449-460) Homewood, IL: Irwing, Inc.


Harris, O. J. Jr (1990). *Administración de recursos humanos: Conceptos de conducta
interpersonal y casos*. [Management of human resources: concepts of interpersonal
behavior and cases] Mexico, DF: Editorial Limusa Press, Inc.


Mahoney, M.J. (1988). Psicoterapia y procesos de cambio humano [Psychotherapy and processes of human change]. In M.J. Mahoney & A. Freeman (Eds.). *Cognición y psicoterapia [Cognition and psychotherapy]*, 25-72, Barcelona: Spain, Ediciones Paidós


