Job characteristics and its outcomes

- A comparative work design study of non-profit and profit organizations.

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Abstract

Few topics in the field of organizational psychology and behavior have attracted as much research as work design. The design of work has an enormous impact on organizational success and individual well-being. The aim of this study is to build a work design model by including new and relevant variables, and to validate specific pattern of relationship between work characteristics and outcome variables. The study context is organizations within the health sector, profit and non-profit (religious-based) hospitals will be contrasted. Testable hypotheses derived from the model are specified.

INTRODUCTION

During the past decades, few topics in the field of organizational psychology and behavior have attracted as much research as work design (Oldham 1996). The design of work has an enormous impact on organizational success and individual well-being (Morgeson and Campion 2003). Work design has great practical significance to organizations as they try to attain such diverse outcomes as efficiency and satisfaction. Also, a major part of every manager's job involves the design of employees' work. The reduced research interest in recent times is all the more surprising given the resurgent interest in work design in organizations. The majority of research under the auspices of work design has centered on the model developed by Hackman and Oldham (1975, 1976). This has had a curiously narrowing effect (Morgeson and Campion 2003). Some topics have been investigated in great detail (e.g., the five-factor structure of the JDS) whereas other topics have been all but neglected.

OBJECTIVE OF THE STUDY

The core aim of this study is to build a work design model by including new and relevant variables based on literature-requests and based on the authors' qualitative pilot study. Pattern of specific relationships between work characteristics and outcome variables are theoretically derived, and testable hypotheses are specified.

THE THEORY OF WORK DESIGN

Work design theories draw heavily from motivational theories in organizational psychology. The thinking underpinning contemporary approaches to work design can be traced back to views that emerged in the United Kingdom around the time of the Industrial Revolution (Parker, Wall & Corderly 2001). Adam Smith promoted the division of labour, or the breaking down of complex jobs into simpler jobs, as a way of enhancing performance. With respect to the design of individual jobs, the first major theory was that of Herzberg and colleagues (Parker et al. 2001). Their Two-factor Theory was superseded by Hackman and Oldham's Job Characteristics Model (JCM) (1976). This identifies five 'core job characteristics': skill variety, task identity, task significance, autonomy and feedback.

The five core job characteristics are specified as determinants of three 'critical psychological states': skill variety, task identity and task significance together contributing to 'experienced

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meaningfulness'; autonomy to 'experienced responsibility'; and feedback to 'knowledge of results. In turn, the critical psychological states are cast collectively as promoting work satisfaction, internal work motivation, performance and reduced absence and employee turnover. The model assumes that autonomy and feedback are more important than the other work characteristics. It was hypothesized that there are three moderators of the job characteristics – critical psychological states outcomes relationship. The most commonly examined moderator has been growth need strength (GNS). It was suggested that individuals high in GNS (i.e. desire for challenge and personal development) will respond positively to enriched jobs than others. The two other moderators (individual knowledge and skill and context satisfaction) have been much less frequently studied.

More than 200 studies conducted on job characteristics that are determinants of attitudinal and behavioral outcomes are the result of more than two decades of empirical research inspired by the JCM (Ambrose and Kulik 1999). Based on these researches, two main conclusions are proposed by Parker et al. (2001). First, the collective effects of the core job characteristics on affective responses (satisfaction and motivation) have been largely supported, but those for behavior (i.e. work performance, turnover and absence) less consistently. Second, the more particular features of the model remain unproven. For example, the specified links between the job characteristics and the critical psychological states have not been confirmed.

One theoretical development that is currently popular is the concept of psychological empowerment). This approach does not focus on the objective features of the job but focuses on whether an individual perceives themselves as empowered. The state of psychological empowerment is defined as motivational state involving an assessment of meaning, impact, competence and choice (self-determination). These cognitive motivational assessments overlap considerably with the critical psychological states in the Job Characteristics Model. Meaning is similar to meaningfulness; impact is similar to knowledge of respons and self-determination is similar to experienced responsibility. Evidence suggests that work characteristics result in psychological empowerment, which results in affective outcomes such as work satisfaction (Liden, Wayne & Sparrowe 2000). However, where the psychological empowerment approach is distinct form the JCM is that it recognizes that the psychological states of empowerment can arise from influences over and above work characteristics, such as peer helping and supportive customer relationships (Parker et al. 2001).

The JCM thinking remains the most common approach to work design research today. A challenge to the job characteristics approach came in the form of the social information-processing perspective (Parker et al. 2001). Noting that employees' perceptions of their work would be the most direct determinants of their attitudes and behavior, this approach suggested that perceptions arise much from social factors as from objective work characteristics, making how people see their work the focus rather than the design of work itself. Research has supported the idea that social influences affect perceptions of jobs, but suggests that these effects are weaker than those of objective job features (Parker et al. 2001).

GAPS IN PRESENT KNOWLEDGE

Over the past two decades, several studies within work design have been conducted, especially those based on Hackman and Oldham's (1976) Job Characteristics Model. A closer inspection of the literature reveals that there are many important missing components to an adequate general theory. Existing approaches do not make an effort in recognizing additional work characteristics or outcomes that are of potentially increasing importance (Parker et al.). There has also been insufficient attention to the mechanisms or processes that underpin the link between work characteristics and outcomes, as well as limited consideration of the contingencies likely to moderate those links. Existing approaches also do little to explicate the antecedents of work content. As Parker et al. (2001:417) states: "Quite simply, existing theory is under-specified and relatively context-insensitive."

Also, a more diverse set of job characteristics need to be investigated. Job complexity measures such as skill variety and autonomy are well established, more work is needed with respect to the social environment (Morgeson and Campion 2003). Also, a wider range of moderators of the work design – outcomes relationship should be investigated. Research into GNS has not yielded much support. Other important individual differences could include personality or ability (Morgeson and Campion 2003).

I therefore conclude that there is a need for further improvement and refinement of the existing work design models. An interesting step forward may be a better insight in the precise pattern of relationships between work characteristics and outcome variables. Such a refined insight could contribute to the improvement of existing theoretical models of job characteristics. Also, a diverse set of variables will be investigated, including the insufficient

attention to the consideration of the contingencies likely to moderate the links between work characteristics and outcomes.

PROFIT AND NON PROFIT ORGANIZATIONS

There is a debate within organizational studies on how to divide and structure sectors and organizations. The dominant model begins with the assumption that there are three sectors consisting of 1) government or public sector, 2) business or for-profit organizations and 3) private non-profit organizations (Jeavons, 1992). Even if one accepts this model, the question of what more specifically distinguishes these sectors and organizations within them remains. In recent literature a number of ways of articulating these distinctions is offered.

Non-profit organizations are often distinguished from for-profits primarily in economic terms (Jeavons, 1992). Hence, non-profit organizations can be looked upon as a large group of different organizations that are not public and do not have a profit maximation purpose. Examples are political parties, voluntary institutions and private foundations. This study is limited to and has a focus on one specific part of the non-profit organizations, value-based organizations. I further operationalize value-based organizations as religious-based organizations in this study. The reason for selecting religious-based organizations is due to the lack of motivational research of these organizations.

A useful way to conceptually single out organizations is to look at the initial and primary purposes of the organizations as an important distinction, as Jeavons (1992: 403) claims: "what is most significant in distinguishing these sectors from one another is the initial and essential purpose of the organizations within them." Value-based organizations are often born and exist primarily to give expression to social, moral or religious values as well as completing some specific tasks, e.g. by providing social welfare services. I define religious-based organizations as organizations that are concerned to give witness to religious values as well as completing some tasks. Examples are private religious-based hospitals or 'substance abuse treatment centers' that do not have a profit maximation purpose.

THE CONCEPTUAL MODEL

In order to improve the knowledge regarding the relationship between different work characteristics on one hand and various outcomes on the other hand, a more precise insight

into the relationship between these classes of variables is needed. The formulation of more specific relationships will improve existing theoretical models of work characteristics and may result in refined guidelines for investigating and improving work settings. Therefore, the present study introduces an approach to investigate systematically whether or not specific relationships exist between the different characteristics of the work setting and theoretically different outcome variables. First of all, such a systematic investigation calls for a clear classification of work-characteristics. Second, relevant and theoretically distinct outcome variables must be selected. Third, theoretical underpinnings of specific relationships between work-related variables and selected outcome variables have to be formulated. Finally, an integral test of a proposed specific pattern of relationships must be carried out. In the following chapter, the three first steps are elaborated. The last step is presented in chapter 6.

Work characteristics

In order to gain insight in the specific pattern of relationships between work characteristics and outcome variables, a clear classification of work characteristics are of importance. There are different ways of subdividing work characteristics into categories (e. g. Janssen, Jonge and Bakker 1999). Because most job characteristics are based on a narrow set of a priori formulations, it is an open question as to whether employees actually experience or view work in the same way. Therefore, a qualitative pilot study consisting of semi-structural interviews were done to identify possibly missing but important work dimensions. Basically, work characteristics from theory were confirmed. Also, some additional information were revealed, especially the importance of social environment, which is included in the model. Latham and Pinder (2005) state that researchers have relatively ignored social environment as a major job characteristic component.

In this study, work characteristics are subdivided into three clear categories. The division is built on but further developed from classification from the study by Janssen, Jonge & Bakker (1999) and Houkes et al. (2001).

The first category in this study is called *internal job factors*. I define and categorize internal job factors as factors that are directly related to the job activity. This category focuses on the work content and draws heavily from Hackman and Oldham's work characteristics model. JCT continues to receive support and provides a useful framework for job design (Ambrose

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and Kulik 2001). Relevant work contents that will be investigated in this study are *autonomy* and *development of knowledge and skills.*

Autonomy: In individualist cultures, autonomy is among the most strongly held values (Hulin and Judge 2003). However, autonomy is only important in those jobs where the work is not routine or predictable (Latham and Pinder 2005). Three aspects of work autonomy and responsibility are clarified in Morgeson and Campion (2003): timing control, method control and production responsibility. Timing control reflects the opportunity to determine the scheduling of work. Method control refers to the choice of how to carry out tasks. Production responsibility concerns the extent to which an individual can make errors that can result in costly losses of output. This research will focus on the first two aspects of autonomy.

Development of knowledge and skills: In Herzberg's Two-factor theory, development of skills is classified as a motivator that increases job satisfaction. Also the qualitative pilot study emphasized the importance of knowledge and skill development in relation to job satisfaction.

The second category among the work characteristics is called *external job factors* which I characterize as factors outside the job activity. This focuses on conditions of employment. Relevant and selected variables are *salary* and *job security* that are assumed to influence outcome variables (Houkes, Janssen, Jonge and Nijhuis (2001), Morgeson and Campion (2003)).

The third category, I have called *social job factors*, which focuses on the social environment at work. Social environment has long thought to be important factor in work design, the social context has been investigated by a variety of researchers, and addressing the criticism that the interpersonal-social aspect of work has been missing from job characteristics conceptualizations (Morgeson and Campion 2003). Research conducted in the stress literature has emphasized the importance of social support. Social support can come from co-workers or supervisors and might serve to buffer workers from a number of negative outcomes. The social environment dimension has received less research attention, but recent research on job and task interdependence has begun to address this gap. More work is clearly needed into other features of the social environment, such as feedback from others related to important work design outcomes (Morgeson and Campion 2001). Within the category of social job factors, *feedback from others* and *co-worker relations* are selected variables.

Feedback from others: *T*he work of Hackman and Lawler (1971) suggested that feedback from others (e.g. co-workers, leaders) represents an important aspect of work. Also Parker et al. (2001) highlights feedback as an important job characteristic.

Co-worker relations: The importance of good collegial fellowship was revealed as a very important factor in the qualitative pilot study, where one of the informants told that "I was offered a new job with higher salary in another department in this organization. I didn't want that job due to the nice social environment where I am located and due to tasks that would be more technically the other place. Another told: "If I was offered NOK 50 000 more per year in another organization, I wouldn't change working place due to the good social environment here, my colleges are my friends." Co-worker relations is included as a factor within the social job factor category due to results from the qualitative pilot study and due to demand from literature to give social environment more attention in a work design setting (Morgeson and Campion 2003).

Outcome variables

A second step in the development of a specific pattern of relationships is the selection of several theoretically distinct outcome variables, which are also considered important organizational and social issues. In the same way that the range of work characteristics usually considered in work design research has been criticized as being too limited, so too has the range of outcomes (Parker et al. 2001). Traditional outcomes such as job satisfaction and performance will certainly remain central to the agenda. In addition, some other outcome variables will be included. Selected outcome variables in this research are affective outcomes such as *job satisfaction* and *organizational commitment* and behavioral outcomes such as *job performance* and *turnover intention.*

Job satisfaction is defined as multidimentional psychological responses to one's job (Hulin and Judge 2003). These responses have cognitive (evaluative), affective (or emotional) and behavioural components. Job satisfaction refers to internal cognitive and affective states accessible by means of verbal – or behavioral and emotional responses. The multidimensional responses can be arrayed along good-bad, positive-to-negative continua. Measurement of job affect creates problems for researchers. Affective reactions are likely to be fleeting and episodic – that is state variables rather than consistent chronic variables (Hulin and Judge

2003). Job attitudes are also highly personal; one's job intimately involves the self. Job satisfaction represents evaluations of the respondent's own job, the activity that serves to identify us, not an evaluation of an abstract concept or object as social attitudes typically are.

Organizational commitment: The concept of organizational commitment has been examined for nearly half a century. Its' most recent formulations conceptualize commitment as a three dimentional construct with the facets of affective, normative and continuance commitment (Meyer & Allen 1991).

Affective commitment (AC) describes the integral attachment to the organization (or parts of the organization). This type of commitment is an attitude which describes the extent to which the individual feels part of the organization as a 'family.' AC develops on the basis of material and non-material exchanges between an organization and an organization member. Normative commitment (NC) reflects the feeling of obligation to stay in the organization. It denotes to what extent a person feels committed to the organization because of moral values and normative beliefs. This type of commitment is developed on the basis of an individual's general beliefs or morality on the one hand and the investment by an organization made on behalf of the individual (e.g. for further training) on the other hand. Continuance commitment (CC) refers to an awareness of the personal costs associated with leaving the organization. This type of commitment is determined by the interdependence between individual and organization and external variables like location factors.

The three facets of commitment can best be summarized as follows (Dick 2004:176):
- o People with strong AC stay in their organization because they want to
- o Individuals with strong CC stay because they need to do so
- o Persons high in NC stay because they feel that they ought to.

Job performance: An important area for research is the nature of job performance (Hulin and Judge 2003). It is a broad construct, not a behavior. Job performance compromises many specific behaviors typically measured through a subjective supervisory evaluation. That job performance is composed of many behaviors, is an advantage in terms of isolating its antecedents, consequences and correlates.

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Turnover intention: This outcome may be described as the inclination to leave an organization voluntarily (Houkes et al. 2001). Literature regarding turnover and turnover intention suggests that their causes have not totally been clarified yet.

Mediator variable

How do work characteristics influence outcomes? This is a question of mechanisms, that is, of the mediating pathways that underpin the core relationships. It is likely that work characteristics affect outcomes via multiple mechanisms. However, work to date has assumed to be motivational. The Job Characteristics Model for example, proposed motivational processes in the form of critical psychological states, although these have not fared well in empirical studies (Fried and Ferris 1987). The intrinsic motivation mechanisms proposed by psychological empowerment theory have thus far fared better, at least in terms of accounting for attitudinal outcomes, at both individual and group levels (Parker et al. 2001).

A key conceptual question in work design concerns the underlying psychological mechanisms through which work design influences affective and behavioural outcomes. Because the research in industrial and organizational psychology has focused on motivationally oriented work design, this research also focus on motivational models and the psychological mechanisms presumed to underlie their effects. Though, there are reasons to believe that several factors mediate between work characteristics and outcomes. In this conceptual model, *intrinsic motivation* is assumed to mediate between some work characteristics and affective outcomes.

Motivation: Motivation is a core construct. To understand why people behave the way they do in organizations, one must know something about motivation. It is not the only cause of behaviour or the most important one, but it is usually part of the picture. Motivation varies across and within individuals. And, it seems to combine with ability to produce behavior and performance (Mitchell and Daniels 2003).

Pinder (1998) describes work motivation as the set of internal and external forces that initiate work-related behavior, and determine its form, direction, intensity and duration. Work motivation is a middle-range concept that deals with events and phenomena related to people in a work context. The definition is wide and recognizes the influence of both environmental forces (e.g., organizational reward systems, the nature of the work being performed) and

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forces inherent in the person (e.g., individual needs and motives) on work-related behavior. In this research, intrinsic motivation is defined as: "the degree to which a person wants to work well in his or her job in order to achieve satisfaction (Houkes et al. 2001).

Moderator variable

Moderator variables are contingencies affecting the link between work characteristics and outcomes. It has been recognized that work enrichment might be more beneficial for individuals with high growth need strength (Hackman and Oldham 1976). Apart from this contingency, established work design theories have been largely universalistic in their prescriptions. However, it is plausible to assume that there are contingencies that affect the appropriateness and effectiveness of particular work designs. Incorporating such moderators into the model of work design might increase the precision of recommendations for work redesign within particular contexts. In this study the focus is on individual factors (not organizational such as information/technological systems. Parker et al. (2001:432) claims that: "There is a need to carefully choose individual difference variables that theoretically would be expected to moderate the impact of work design.

Morgeson and Campion (2003) state that a wider range of moderators of the work design – outcomes relationship should be investigated. Research into GNS has not yielded much support. Other important individual differences could include personality or ability. The job environment affects and is affected by a person's needs, personality and values. Research emphasis has been on the former rather than on the latter (Latham and Pinder 2005). Motivation may be low depending on the fit between the characteristics of the job and the person's values and personality. This study focuses on *personality and values* as moderator between work characteristics and its outcomes.

Personality: The five factor model of personality structure has generated substantial interest among personality researchers. The belief is that personality-based variations in behavior are largely interpretable in terms of the Big Five Factors of Extraversion, Agreeableness, Conscientiousness, Neuroticism and Openness. This view of personality structure has consequently led to the development of several questionnaires, inventories and adjective rating scales designed to measure these dimensions of behavior (Paunonen 2003). Among the Big Five factors, Conscientiousness (C), Agreeableness (A) and Openness (O) seem particularly relevant for influencing the work characteristics – outcome relations.

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Work values. Values research is diverse. Disciplines such as psychology, management, sociology, anthropology and philosophy have each addressed the topic over extended periods of time. I focus on individual work values in this study. The study of individual values is the most common psychological approach to values research. Individual values are important in organizations because reactions to the work environment are partially determined by the degree to which values are attained.

Control variables

Age, sex, number of working years in present organization and number of working years in total are control variables that are expected to affect the outcome variables.

Summary of variables in the model

WORK CHARACTERISTICS

Internal job factors

Autonomy

Development of skills

Intrinsic motivation

External job factors

Salary

Job security

Ind. work values

Social job factors

Feedback from others

Co-worker relations

Personality

OUTCOME VARIABLES

Affective outcomes

Satisfaction

Org. commitment
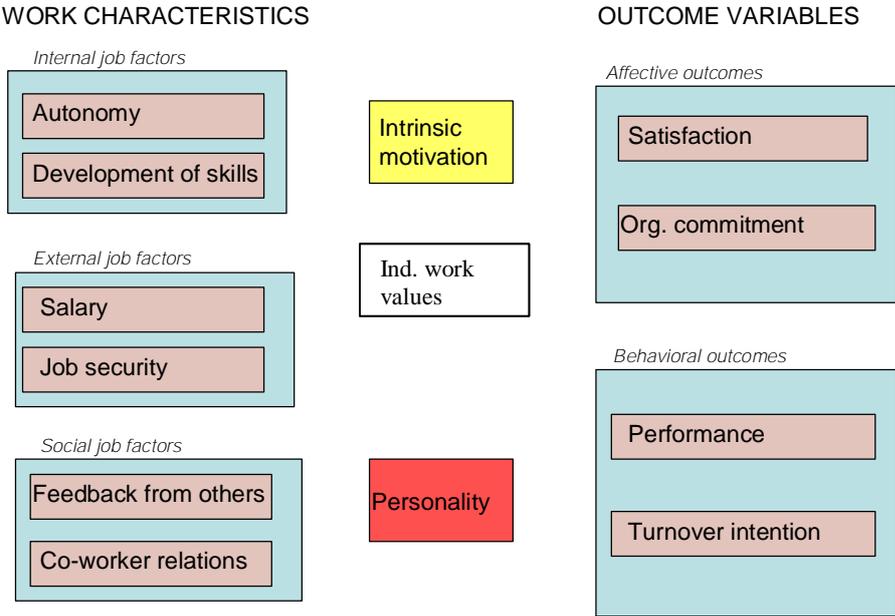
Behavioral outcomes

Performance

Turnover intention

Figure 1: Variables in the model

Based on the previous outline, the variables in the model are shown in figure 1. Independent variables are internal job factors (autonomy and development of knowledge and skills), external job factors (salary and job security) and social job factors (feedback from others and co-worker relations). Dependent variables are affective outcomes (satisfaction and

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organizational commitment) and behavioral outcomes (performance and turnover intention). Personality is moderator and intrinsic motivation a mediator in the model.

Approaches to work design have suggested that the primary influence on work design outcomes were aspects of the work itself. There is reason to believe, however, that there are other influences. Contextual influences at work, such as organizational structure, technology, leader behavior and physical environment assumed to influence work design outcomes, but are not included in the model due to complexity.

SPECIFIC RELATIONSHIPS BETWEEN WORK CHARACTERISTICS AND OUTCOME VARIABLES

The final step and the main purpose of this study is to further validate a specific pattern of relationships between important work characteristics and outcome variables, based on existing theories, authors' pilot study and previous empirical findings in the domain of work and organizational psychology.

Theory (e.g. Job Characteristics Theory) as well as empirical studies (e.g. Fried and Ferris 1987 and Hackman and Oldham 1976) reveal that intrinsic motivation is primarily related to work content variables (such as job autonomy). Cognitive evaluation theory (CET) assumes that people have a psychological need for competence and self-determination (Ryan and Deci 2000). CET asserts that underlying intrinsic motivation are the psychological needs for autonomy and competence.

This lead to *Hypothesis 1*:
Intrinsic motivation is predicted by the internal job factors autonomy and development of skills.

Positive performance feedback enhances intrinsic motivation whereas negative performance feedback diminishes it (Ryan and Deci 2000). *Hypothesis 2* is put forward:
Intrinsic motivation is influenced by the factor positive feedback from others.

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A wider range of moderators of the work design–outcomes relationship should be investigated (Morgeson and Campion 2003). Personality is assumed to moderate the link between internal job factors and intrinsic motivation as well as the feedback – intrinsic motivation link.

Hypothesis 3 is put forward:
Personality factors moderate the internal job factor – intrinsic motivation link and the feedback – intrinsic motivation link.

Hypothesis 4:
Employees in religious-based and profit-based organizations have a systematically different set of work values.

Hypothesis 5:
Individual work values moderate the internal job factor – intrinsic motivation link.

Intrinsic motivation is assumed to mediate between internal job factors and job satisfaction, which means that motivation and satisfaction correlates:

Hypothesis 6:
Job satisfaction is predicted by intrinsic motivation.

Due to findings from pilot study, *Hypothesis 7* is put forward:
Job satisfaction is predicted by co-worker relations.

Active feedback seeking by new employees is related to high performance (Latham and Pinder 2005). This leads to *Hypothesis 8*:
Performance is predicted by feedback from others.

External job factors such as job security and salary are important correlates of turnover and turnover intentions and lack of satisfaction with job facets such as salary are associated with turnover intention (Houkes et al. 2001). *Hypothesis 9* follows:
Turnover intention is primarily predicted by unmet expectations of external job factors like salary and job security.

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Correlates to commitment are variables that reflect an employee's psychological reactions to work (e.g. motivation, stress, and job satisfaction) (Meyer 1997). Since this research concentrates on relationship between work characteristics and outcome variables, correlation between outcome variables (commitment and satisfaction) are not included in the hypothesis.

Hypothesis 10: *Organizational commitment are predicted by intrinsic motivation.*

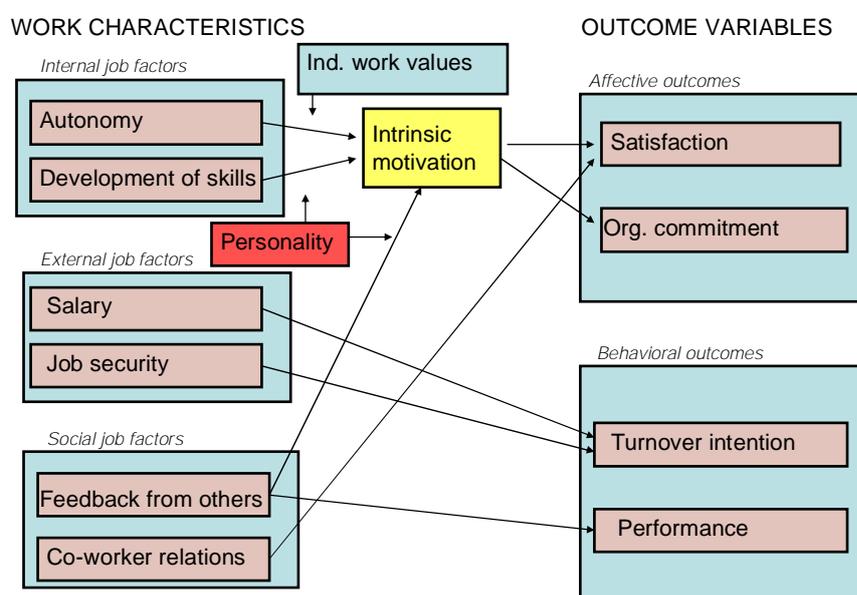The ten stated hypothesis above are shown in the research model, figure 2.

Figure 2: Hypothesized relationships between work characteristics and outcome variables.

CONCLUSION

The main purpose of this study is to include newly requested and relevant work characteristics and to further validate a specific pattern of relationships between important work characteristics and outcome variables, based on existing theories, authors' pilot study and previous empirical findings in the domain of work and organizational psychology. Testable hypotheses are derived from the model.

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