

Perceptions of Administrative Staff in Organizational Change and Job Strain in the Australian Higher Education Sector

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Abstract *This paper reports the findings from a study which integrated the literature on organizational change, new public management (NPM), and job satisfaction. Data was collected from administrative staff regarding the impact of the increasing adoption of NPM practices in the higher education sector via a self-completed questionnaire. The results showed that the provision of detailed change-related information and early involvement of staff in the decision making process affected employees' perceptions of job related outcomes. Universities could provide frequent personal and career development programs to increase staff's self-efficacy; develop formal peer support network and mentoring programs to increase work place support; and provide a greater sense of workplace democracy through encouragement of feedback and more localized decision making processes.*

Keywords: education; change management; new public management; public sector reform

New public management (NPM) has been widely adopted in Organization for Economic Corporation and Development (OECD) countries as a means to increase efficiency, accountability and productivity in public sectors (Chandler et al. 2002). Kolthoff et al. (2007) notes managerialism and indirect control through a process of management that involves intrinsic and extrinsic rewards as the two principles underlying the essence of NPM. Hays and Kearner identified five core values in NPM: downsizing, managerialism, decentralization, debureaucratization and privatization (Kolthoff et al. 2007 p407). Similarly, Chandler, Barry and Clark (2002, p1054) find comparable NPM impacts in OECD countries where this model of management has been widely used since the 1980's, and categorize the patterns as "seven dimensions of change: greater disaggregation; enhanced competition; the use of management practices drawn from the private sector; greater stress on discipline and parsimony in resource use; a move towards more hands-on management; a concern for more explicit and measurable standards of performance and attempts to control according to pre-set output measures" As a model of public administration, NPM aims to reinvent public institutions through incentives and market conditions. These characteristics lead Osborne and Gaebler to label this new model of public administration as the 'Entrepreneurial Government' (Kolthoff et al 2007, p403). The NPM reforms in the Higher Education sector have had a profound impact in universities. The consequences of its rigid measures not only resulted in a shift in how universities engaged with the outside world, but also led to what some commentators lamented as a lowering of education quality and standards; as Parker and Jary note "the adaptation of a system of mass higher education and the

appearance of...McUniversity” (Chandler et al 2002, p1053). In addition, Chandler (2000) argues this led to a change in organisational culture and human costs such as job insecurity and stress.

The way that NPM is expressed in the Australian environment follows similar patterns, with changes to organisational structures, partial or complete privatisation of state-owned organisations, auditing of performance and so on. Szekeres (2006, p136) contends that under NPM, Australian universities have corporatised with organizational focuses diverted to budgetary and resources constraints, a drive for efficiency and higher productivities and also reporting and external audit requirements. The adaptation of NPM has also led to the emergence of a professional class of employees, organizational cultural changes and increases in stresses amongst staff. Gillespie et al (2001, p 53) argue the extensive funding cuts, organizational restructuring and down-siding that transpired in Australian universities are echoed in other developed countries, and consistently similar patterns of increased job related outcomes are found.

Noblet et al. (2005) note that in the public sector the push for closer managerial control and reduced costs faces additional constraints that may not hold as true of the private sector – on which NPM is modelled - in particular a reduced level of government funding or financial resources, potentially hostile labour relations, and tighter government requirements. So whether work intensification and greater managerialism is appropriate to the public sector is open to argument.

The Job Demand Control Support Model

The importance of assessing the impacts of increasing job demands under NPM is clearly indicated at the organisation level - as issues like burnout and disengagement have their impacts on the achievement of organisational goals - and at the individual level; with negative effects on physical and mental health. The dominant model for examining these issues is called the job demands-control-support model (DCS), based on work by Karasek’s 1979 Job Strain model which used a two dimensional design, using the demands of the job, and the amount of control within the job as a way to predict the amount of strain felt by the individual (Noblet et al. 2005). Where a situation resulted in excessive and increasing job requirements, and where that situation was not matched with increases in authority or control over the nature of the work, increased strain had a negative impact on the individual's performance. Resources such as support networks both within the workplace (supportive

colleagues/supervisors) and outside the workplace (family/friends) have been found to ameliorate the effects of workplace stress and burnout.

Karasek (1990) advocates that by increasing democratic participation (in the workplace), one could bring about higher productivity as well as improving employees' health. Karasek (1990, p172) cites substantial research linking increased worker participation to lowered levels of psychological stress but also notes that where jobs combine a lowered level of autonomy (lack of control) with high demands there can be significant health consequences including coronary heart disease. His study of Swedish white-collar workers found strong evidence that increased participation and control could reduce stress related illness in the target group. However, Karasek and other researchers also found that even in restructuring a job to increase participation and reduce job stress, the consequence may be to at least temporarily increase work stress, thus leading to job dissatisfaction.

Cunningham et al (2002) observed that jobs can also be separated out into active and passive jobs. Active jobs are those where the individual has a higher degree of self efficacy and input into the job flow and pattern of demands. Passive jobs are those wherein the individual has less influence over the demands and outcomes of his or her work and is therefore more likely to suffer the mental and physical results of workplace stress. Their study found that indeed jobs with a higher level of control or sense of mastery were correlated with greater readiness for workplace change.

Factors that have been implicated as significant in dealing positively with the effects of NPM in the higher education sector include job control (the ability to manage workflow and consequences in an effective manner), change information (and participation in the process), and support networks. In a study of Australian universities, Winefield and Jarret (2001) found that greater stress tends to be associated with increased job demands on staff (such as expectations of increased administrative and teaching load and the need to compete for funds; often requiring the academic to take a more entrepreneurial approach) along with reduced control (such as the shift of responsibility and control to more senior University managers rather than the academics). Szekeres (2006) similarly observes the recent NPM-based changes in the university sector (greater managerialism, work intensification etc), and used Information Technology (IT) as an example to illustrate the job demand, control and support issues. IT has both allowed staff to become more productive while increasing the load and volume of

work they are expected to manage. Email for instance can be both a job demand as well as a tool for managing or controlling demand (the ability to choose when and where to communicate, and the ability to communicate with many recipients via a single email), however staff are often not given additional resources to manage the increased workload.

Change information and job satisfaction

The other set of issues that need to be looked at in the examination of NPM effects are the moderators that may affect the build up of stress, and whether there may be ways to manage change in a fashion that leads to more positive feelings on the part of the staff – lessening consequences like disengagement and high turnover. Of specific interest are job satisfaction and organisational commitment. One definition of organisational commitment given by Vakola and Nikolaou (2005, p163) is an “attitude that reflects the nature and quality of the linkage between an employee and an organisation”. The greater the identification with the organisation, the more likely the employee is to expend effort on the behalf of the organisation. There is an acceptance and belief in core values and a willingness to work beyond what is expected.

Jimmieson et al (2004) in their study on change related information and change related self efficacy highlight a related concept of organisation-based self esteem (OBSE) -the extent to which individuals believe they are valuable to the organisation. It was found that those with high levels of OBSE tended to be somewhat protected from the negative effects of change such as lower satisfaction and higher levels of absenteeism. Volkwein and Zhao (2003) also found that intrinsic elements in a job are critical in producing higher job satisfaction in administrative jobs in the higher education sector. For staff to be able to exercise their initiatives and at the same time have a harmonious workplace without interpersonal stresses was a far better predictor of satisfaction than extrinsic rewards. Higher satisfaction can lead to higher levels of organisational commitment.

Vakola and Nikolaou (2005) suggest that organisational commitment is a good predictor of job satisfaction within a change context. The logic being that a committed employee is more likely to put effort into change and also more likely to develop a positive attitude towards the change. Importantly for managers and those introducing and modifying change, the lack of a work-based supportive environment was a very strong predictor of negative attitudes to change (Vakola and Nikolaou 2005,

p169). This particular paper also points to the importance of training, and sufficient information being provided to address reactions of anxiety or uncertainty. Using an expanded DCS model, Noblet et al (2006, p1814) capture a significant range of the variance; specifically, job control and social support made “significant contributions to job satisfaction...”. The predictive aspect of the workplace support element highlights the importance of this key aspect in the workplace, and the important role that managers and supervisors can have in moderating change and improving the work environment.

The current study will develop and test a model, as depicted in Figure 1, by integrating Karasek’s Job Demand Control Support model (Karasek, 1979; Noblet et al 2006) with Organisational Change (e.g. Cunningham et al 2002; Jimmieson et al 2004) to examine the effect of NPM adoption on the job satisfaction of a sample of higher education administrative employees in Australia.

Insert Figure 1 about here

METHODS

Research context

There are a total of 38 Australian based universities of which 37 are public universities where the Federal Government has principle responsibility in providing public funding. In 2005, the total income for Australian universities was approximately A\$14 billion (NTEU, 2007, p3), the sector employed a total of 13,941 Equivalent Full-Time (EFT) staff and enrolled a total student load of 674,092 (NTEU, 2007, p9). This represented a substantial rise from the previous decade, with a 1996 level of A\$8billion in total income (NTEU, 2007, p3), a total of 80,754 EFT staff and enrolment of 465,650 students in 1995 (NTEC, 2007, p9). Indeed, the period between 1995 and 2005 represented a critical one for the sector as it experienced the full scale implementation of NPM while Australia stood alone in OECD economies in its reduction of Government expenditure when measured as a share of Gross Domestic Product; with Australian investment falling by 4% compared to average OCED increase of 49%” (NTEC, 2007, p4) in tertiary education. The implications for Australian universities included the introduction of full-fee places for local students in undergraduate programs, large-scale recruitment of international students and the expansion of offshore and on-shore fee-based

postgraduate programs. NPM brought about large-scale change management, increased reporting and auditing requirements, and performance management. The education services sector is the third largest export income generating industry for Australia, (Australian Education International, 2008) and universities are significant players. Australian universities are forced to be competitive against one another and with their international counterparts. It is in the context of the dramatic cultural, structural, operational and environmental changes that we examine the relationships between organizational change, job demand-control-support and employees job satisfaction.

Sample

The participants were drawn from three large-scale metropolitan-based universities. A total of 130 surveys were randomly distributed to administrative/support staff on varying Higher Education Worker (HEW) levels, covering various department and support units across the universities. A copy of the questionnaire, along with a letter clarifying the purpose of the survey was sent to potential participants to complete and return anonymously. A total of 70 completed questionnaires were returned representing about a 54% response rate. Of the completed returned questionnaires, the majority were female. The majority (84 per cent) were full-time staff, and over 64 per cent were aged 31 and older. About 72 per cent of the respondents had worked in the same organization for three or more years, and the majority of the respondents (just under 82 per cent) were HEW level 4 to level 6.

Measures and Model Estimation

Participants were also asked to report dependent and independent variables as well as demographic information and work-specific questions. To test our proposed model shown in Figure 1, we utilized Smart PLS (Ringle, Wende and Will 2005), a form of structural equation modelling to analyse our model. SmartPLS, a latent path model, is a technique used for estimating path coefficients in causal models and the software allows for the simultaneous testing of hypotheses. Survey data were input into SPSS v.15 to calculate z scores and descriptive statistics. Z scores were calculated to control for any variation between variables.

In PLS, the path coefficients are standardized regression coefficients; the loadings are similar to factor loadings. The significance of each variable to another is then determined according to the bootstrap procedure. PLS differs from LISREL, as it is suitable for the analysis of small samples while

the latter requires substantially larger samples. Another advantage of using PLS over LISREL is that PLS does not require multivariate normal data (see discussion in Lee and Tsang, 2001). Furthermore, PLS is considered to be appropriate in building causal modelling for future testing purposes. Our sample size of 70 cases is within the range considered to be suitable for PLS analysis that is between 30 and 100 cases (Chin and Newstead, 1999: 314).

Harman's ex post one factor test was used to ensure that the current study did not suffer from common method variance (Podsakoff and Organ, 1986). All the variables used in the study were entered into an un-rotated factor analysis to determine the number of factors. If a single factor emerges from the factor analysis, this indicates that the data suffered from a common method variance problem. The analysis showed that there were seven factors (with eigenvalues greater than 1.0). As a result, this result provided some support that common method variance is not an issue in the current study.

Job Satisfaction. For the dependent variable, Job satisfaction, we adopted the 16-item scale from Warr et al (1979) as a measurement. Participants were asked to rate their attitudes in a seven-point scale from '1' Extremely Dissatisfied to '7' Extremely Satisfied on a range of issues including work conditions and prospects, colleagues and job security. The responses were reverse coded for calculation in the study. This scale has a composite reliability coefficient of 0.900.

Support. This is measured by two factors, Support - work, and Support – non-work, adopted from the work of Etzion (1984). Both factors comprised of the same 9-item 7-point rating scale with responses ranging from 'Very Much' (7) to 'Very Little' (1). The factors seek to gauge the level of influence that work and social support have on participants' well-being. Job support (Work) and Job support (Non-work) have a composite reliability coefficient of 0.891 and 0.860 respectively.

Job Demand. An 11-item 5-points scale adopted from the work of Caplan et al (1980) is used to evaluate the psychological and physical demand workload has on participants. Participants were asked to rate their responses from 'Hardly Any/Rarely' (1) to 'Very Often / A Great Deal' (5). The composite reliability coefficient for this scale is 0.477.

Job Control. A 10-item 5 point scale developed by Karasek (1985) was used to gauge the level of discretion and autonomy participants had in their work. The responses ranged from 'Strongly Disagree' (1) to 'Strong Agree' (5). This scale has a composite reliability coefficient of 0.624.

Organizational Change. This measure is composed of three factors including ‘Change information’ (composite reliability =0.922), ‘Participation in Change’ (composite reliability =0.917), and ‘Job Change Self-efficiency’ (composite reliability=0.569). The Change Information factor was assessed with a 5-item five- point scale to ascertain the perceived amount and understanding of change information provided to the participants. ‘Participation in Change’ was measured by a 5-item 5-point scale ranging from ‘Not at all’ (1) to ‘A Great Deal’ (5) adopted from the work of Jimmieson, White and Peach (2004). This factor assesses the participants’ perception of their involvement in the change process. The Job-Change Self-efficiency factor consisted of a 6-item 5-point scale adopted from Cunningham et al. (2002). The scale measures participants’ confidence in dealing with the organizational change processes.

Formalisation. The Formalization factor was adopted from Palmer and Dunford (2004) in which a 7-item scale required participants to provide responses of ‘Yes’ ‘No’ and ‘Don’t know’ to questions on workplace and HR written documentation including rules, fringes benefits, job descriptions, Occupation, Health and Safety issues, performance management, recruitment and termination procedures. This scale has to be revised as PLS analysis showed that only one single item satisfied the underlying reliability test.

Centralization. Centralization in decision making was gauged with an 8-item scale adopted from Palmer and Dunford (2004). Respondents were asked to provide their response with 5-point ratings, where a low score reflects centralisation in decision making. Two items were retained in the model and the scale has a composite reliability coefficient of 0.798.

RESULTS

Table 1 shows the summary result of the statistically significant paths between the various variables using SmartPLS software. The results show that the independent variables explained 69.1 percent of Job Satisfaction of university support staff - the dependent variable in our study.

Insert Table 1 about here

The results showed that organisational change variables resulted in job stress variables. In

particular, the path from 'Centralisation' to the provision of information relating to change is negative and significant (t-statistics = 2.2297, $p < .05$). The path of formalisation negatively led to the provision of information relating to change (t-statistics = 3.4384, $p < .001$), positively led to job control (t-statistics = 2.4521, $p < .01$), and positively led to job demand (t-statistics = 2.1353, $p < .05$) respectively. We found that the paths from participation in change were positive to Job Control (t-statistics = 5.1072, $p < .001$), Job Demand (t-statistics = 2.284, $p < .05$) and Job Satisfaction (t-statistics = 2.1762, $p < .05$). The path from job change self efficacy to job satisfaction was also found to be negative and statistically significant (t-statistics = 2.6374, $p < .01$).

The paths from job support (non-work) to job satisfaction is positive and statistically significant (t-statistics = 2.1936, $p < .05$), and positively and statistically significant leading to job demand (t-statistics = 1.658, $p < .10$). Job support (work) was found to be negative and significantly leading to job demand (t-statistics = 3.4879, $p < .001$). The path from Job support (work) to job satisfaction is positive (t-statistics = 4.5527, $p < .001$). Job demand has a negative path leading to job satisfaction (t-statistics = 3.5977, $p < .001$).

DISCUSSION AND IMPLICATIONS

This study aims to establish the impact of organisational change on the work attributes of administrative staff within the environment of NPM. Our findings indicated that the manner in which organizational change is implemented, the amount of work-load, job discretion and work and non-work support that are provided to the staff all have profound impacts on job satisfaction.

As expected, the present study provides support for the relationship between NPM variables and change and the JDCS variables. The results also showed that the adaptation of NPM practices (such as formalisation and centralisation) together with lower level of participation in change, led to a higher degree of job dissatisfaction. Our findings show that formalisation (in this case, rules and procedural manuals) led to employees experiencing a higher degree of job demand and job control. We found that formalisation has a negative relationship with the provision of information during change as rules and procedural manuals are available to provide guidance to support staff in their day-to-day work. Similarly, a higher degree of decentralisation in staffing decisions is associated with the provision of more information relating to organisational change. This is typical of the industrial

relations climate in the Australian higher education system whereby the enterprise bargaining agreement stipulates the provision of change management related processes with staff. This is not unexpected as researchers have found that formalization can reduce role ambiguity and increase organization identification (Podsakoff et al, 1986). It can also lead to the experience of alienation and an increasing chance of role conflicts for employees (Greene, 1978).

The relationships between participation in change, self efficacy in job change, job control, job demand and job satisfaction are consistent with the literature. Our findings also suggest that there are positive relationships between participation in change and job control, and job demand and job satisfaction. Administrative staff felt that their participation in change management led to a higher level control over their work, but in actively participating in the process of change management, they had to carry additional workload on top of their usual tasks, leading to a sense of over-work (that is, job demand). While participation in change could lead to a higher degree of influence and power employees have in an organization, it can also lead to higher job demand as employees become involved in workplace consultation in addition to their normal duties. As Weller and Van Gramberg (2007, p 174) note “consultation at the workplace lies in the opportunity for employees to discover more about workplace issues....” and to increase control over organizational decisions; however they are also effectively engaged in a process of participative management whose prime object is to increase the economic interests of the organization in the form of efficiency and productivity. Employees’ participation in the change influences decision making processes and outcomes allowing employees to share control in work place decisions which affect their work environment, conditions and welfare (Vakola and Nikolaou, 2005, p175) and in the longer term their job satisfaction. This is consistent with Karasek’s QWL approach where it is found that an increase in participation in change leads to an increase in job control, contributing to an overall higher job satisfaction (Karasek, 1990).

Our study found a negative and significant relationship between self-efficacy and job satisfaction. This may be caused by the scepticism of high job-change self-efficacy staff in the change process. Doyle et al (2000, S71) found that the majority of public services staff were tired of change and were convinced that mistakes made in past change processes would be repeated. The findings by Jimmieson et al (2004, p22) may shed some light in explaining this phenomena, noting that while

employees with “higher levels of change-related information and change-related self-efficacy reported higher level of job satisfaction and psychological well-being in the early phases of the change process, the results were not evident in the delay measures of employment adjustment (2 year later)”.

In the current study, increase in job demand also leads to a lower level of job satisfaction. This finding concurs with Karasek's (1990) study where he predicts increasing job demand in a situation not offset by additional resources (such as increased latitude in decision making and support) leads to an impact on individual work experience. This finding is supported in studies of various professions, including a study of nurses where high strain jobs are found to be linked with lower job satisfaction (Doef and Maes, 1999).

Consistent with the JDCA model, both work and non-support variables are critical in enhancing job satisfaction and have significant impact on job demand (Noblet et al 2006). Woodward et al note that support from work is essential in dealing with stress during organizational change (Vakola and Nikolaou, 2005, p 170). Vakola and Nikolaous (2005, p171) note that a “good and effective working relationships is important” in the change process. Likewise, the study by Swanson and Power (2001) shows that the absence of work support and an increase in job demand can result in job dissatisfaction. Our findings also corroborate those by Perrewe et al (2002), as non-work support from family and social relationships have a direct impact on employee ability in handling job demands.

Limitations and Future Implications

While the model used in the present study gauged the level of job satisfaction, a qualitative study may allow for a more in-depth understanding of the type of work-specific situations that may also contribute to job satisfaction. . The respondents in the current study are drawn mainly from junior levels of administrative staff, whereas future studies targeting a more senior level of staff and the inclusion of cross cultural studies may provide insights on whether and how work cultures play a role in affecting job satisfaction.

Support from work and level of job demand are clearly indicated in the present findings as the most significant of all predictors for employees' job satisfaction. As the literature suggests, support is an essential element in maintaining job satisfaction and in turn affects the employees' ability to deal

with changing job demands. The implication for the higher education sector is that human resource management actions need to be taken to prevent the emergence of unintended negative by-products of NPM reforms – such as job dissatisfaction - which can override any productivity gain. HRM should foster a supportive work culture as supervisor and peers support clearly play a role in the determination of employees' job satisfaction and how employees handle the increasing job demands. The employees' involvement in change is an important element in a successful NPM implementation, and HRM design should encourage the opportunity for staff feedback and participation. Staff participation in change allows employees to gain greater control over the job while contributing to productivity and efficiency; for example by introducing proactive HRM practises such as industrial democracy where all parties would reap benefits (Well and Gramberg, 2007 p174).

CONCLUSION

New public management has dramatically changed the landscape of Australian Universities, bringing with it benefits such as new organizational structures, new measures for accountability, new professional classes and new enterprises. In the process, NPM reforms have produced unintended human costs. The current study found a number of factors that impacted negatively on administrative staff job satisfaction, which could be improved or avoided with carefully planned change processes that embrace staff focused actions. These include the provision of detailed change-related information and the early involvement of staff in decision making processes affecting change. Universities could also provide frequent career development programs to increase staff self-efficacy; develop formal peer support networks and mentoring programs to increase work place support and provide a greater sense of workplace democracy by encouraging staff feedback and localized decision making processes.

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Figure 1. Proposed Model of Organisational Change, Job Control, Demand and Support and Job Satisfaction

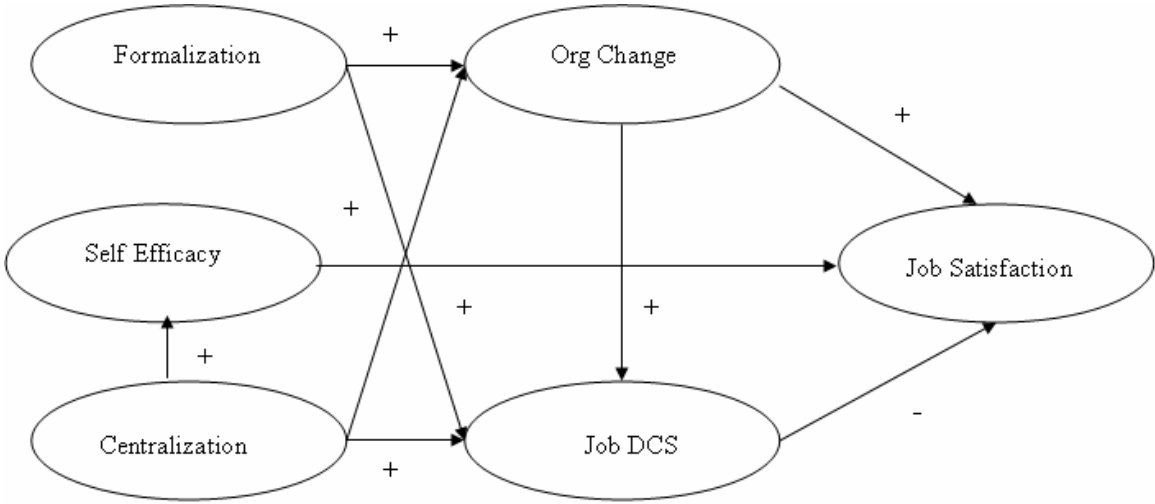


Table 1. Results of Path Analysis of Organisational Change and Support Staff Stress

Paths	Path Coefficients	t-statistics	sig
Participation in Change → Job Control	0.5673	5.1072	***
Participation in Change → Job Satisfaction	0.1814	2.1762	*
Participation in Change → Job Demand	0.2596	2.284	*
Centralisation → Change Information	-0.259	2.2297	*
Formalisation → Change Information	-0.2154	3.4384	***
Formalisation → Job Control	0.2578	2.4521	**
Formalisation → Job Demand	0.237	2.1353	*
Self Efficacy → Job Satisfaction	-0.194	2.6374	**
Job Support Non-work → Job Satisfaction	0.2077	2.1936	*
Job Support Non-work → Job Demand	0.2512	1.658	+
Job Support Work → Job Satisfaction	0.4376	4.5527	***
Job Support Work → Job Demand	-0.4721	3.4879	***
Job Demand → Job Satisfaction	-0.2542	3.5977	***

+p<.10; *p<.05; ** p<.01; *** p<.001