The effect mechanism of work flexibility on employee job satisfaction

Xuejiao Ma
School of Management, Shanghai University, 99 Shangda Road, Baoshan District, Shanghai, 200444, China

Email: 18817578018@163.com

Abstract. This study is aimed to explore the effect of work flexibility on employee job satisfaction and the mediating effect of perceived organizational support based on the conservation of resource theory. In this study, we collected 309 data through self-assessment of employees in the R&D departments and sales departments of companies, and performed hypothesis verification through the structural equation modelling approach. The results of regression analysis show that: (1) the two dimensions of work flexibility (i.e. scheduled flexibility and workplace flexibility) are positively correlated with job satisfaction; (2) perceived organizational support acts as full mediators between scheduled flexibility and job satisfaction, and between workplace flexibility and job satisfaction. The study concluded that implementing work flexibility in a company can enhance the employee’s perception of organizational support, and according to the reciprocity viewpoint in social exchange theory, the employee will have better recognition to the company and tasks, and their job satisfaction will increase accordingly. These results will enrich the application theory of work flexibility in companies and provide theoretical basis for the subsequent implementation.

1. Introduction
Along with the popularity of “Internet +” concept and the wide application of network and social software, the boundary between work and non-work is blurring, and the work boundary shows a high permeability and flexibility [1], which is more noticeable in R&D teams of companies and start-ups. Additionally, the number of two-job families is increasing, employees may need to deal with non-work-related affairs during working time and deal with work-related affairs during non-working time, their work stress and role stress are increasing gradually. Under this background, the concept of work flexibility emerged in response to the needs of times. A company can implement work flexibility policy to help the employee to relieve their stresses, thus to improve their physical and mental health.

Work flexibility is usually defined as the employee can decide when and where they work, and it is a way to help the employee to balance their family and work needs [2]. The current studies show that work flexibility has significant correlations with work-family conflict or enrichment, that is work flexibility can significantly reduce work-family conflict and significantly increase work-family enrichment [3]. Researchers also studied work flexibility by combining it with work-related variables while studying the effect of work flexibility on balancing of family and work needs. It has been proven that work flexibility has close correlations with work-related variables, such as organizational identification [4], work stress [5], and separation rate [6].

We found that job satisfaction is a work-related variable that is ignored in current literatures. However, some researchers have found that the work-family balance can improve job satisfaction [7].
Furthermore, it has been proven that job satisfaction has close correlation with organizational identification and work stress etc., and is also the premise and basis of these study results [8]. Therefore, job satisfaction can be used to better integrate the present research results and enrich the literature review of work flexibility. For this reason, job satisfaction is used as a dependent variable in this study to explore the effect mechanism of work flexibility on job satisfaction. We also found another blank in current literatures, i.e. whether the effect of work flexibility on employee job satisfaction is indirect? Whether any other variable is involved in their correlation? Some studies have shown that in the company that implements work flexibility, employees will perceive it as a material support and spiritual support, and realize that the organization takes count of their needs and provides necessary support [9]. Other studies have shown that perceived organizational support is an important antecedent variable of job satisfaction, and increasing perceived organizational support can improve the employee job satisfaction[10].

Therefore, the variable of organizational support is introduced in this paper to investigate the effect mechanism of work flexibility on job satisfaction. For this reason, we will mainly discuss two issues here: (1) the correlation between work flexibility and job satisfaction; (2) the mediating effect of organizational support between work flexibility and job satisfaction. This study not only has a rich theoretical contribution, but also provides practical advice to corporate managers. In other words, the application area of work flexibility is mainly R&D department and sales department in the enterprise, because both of these departments need to give employees greater flexibility to handle work tasks in a timely manner and to reasonably make work-life balance, so we take the staff of two departments as samples. The results are inputs to design human resource policies on work flexibility and job satisfaction in order to focus on employee feedback and job performance after work flexibility to adjust the conditions for the implementation of work flexibility and to better enhance work efficiency and innovation.

2. Theoretical Background and Research Hypotheses

2.1. Work flexibility and employee job satisfaction
The concept of work flexibility includes not only the flexibility of time, but also the extent to which the employees can decide the way and place they work, which have direct effect on various aspects of work and life, such as emotional exhaustion, the work-family balance etc. [11]. In present study, the work flexibility is divided into two dimensions, i.e. scheduled flexibility and workplace flexibility according to this definition. Where, scheduled flexibility means that the time period for employees to work is unlimited, which can be daytime and night; workplace flexibility means that the environment and place for employees to work are unlimited, and they can select the suitable working environment to improve their work efficiency.

The current studies show that work flexibility has positive effect on employee’s working attitude, and as the time inconsistency between work and family is effectively settled by time flexibility, employee’s working quality, living quality, attendance rate and work efficiency are increased, which results in increase of employee job satisfaction [12]. The conservation of resource theory (COR theory) can be used to explain the process of resource interaction between work and family environment. The basic assumption of COR theory [13] is that the total amount of resources owned by an individual is certain, and individuals will do their utmost to obtain, preserve, and maintain their own limited resources; the potential or actual loss of these resources is a threat to them. COR theory reveals two spiral effects of resources, namely loss spiral and gain spiral. The loss of spiral means that individuals who lack resources are not only more susceptible to the pressure caused by the loss of resources, but also the existence of such pressure causes resources to make ends meet, thus accelerating the loss of resources. So, according to COR theory, with the increasing of work flexibility, employees are allowed to deal with non-work-related needs during working time to balance the resources required by each role, thus to reduce the conflicts between work role and life role. Some researchers also found that work flexibility can help the employee to reduce work stress and family stress, and increase their
job satisfaction by improving the level of work-leisure balance [14]. Furthermore, the researchers found that work flexibility is an incentive method which can improve employee job satisfaction [15]. Taking the telecommunications industry as an example, researchers found that the employee who adopt flexible working methods are more cooperative and show more organizational citizenship behaviours, and are more satisfied with their work. Therefore, the following hypotheses are proposed in this paper:

H1: Scheduled flexibility has significantly positive correlation with job satisfaction.
H2: Workplace flexibility has significantly positive correlation with job satisfaction.

2.2. The mediating effect of perceived organizational support
Some studies have shown that work flexibility will let the employee be aware of the support from the organization, and in return, the employee will have a stronger perception of affiliation to the organization, their job satisfaction will increase accordingly [16]. Generally, the supports provided by the organization for the employee are divided into material resources (welfare and training etc.) and spiritual support (rewards and recognition etc.). The employee with stronger perception of organizational support usually can get relatively more resources from the organization, and these resources have positive effect on the psychology and behaviour of employee, such as reduction of separation rate; improvement of organizational commitment, job satisfaction and work performance.

For it can meet the employee’s family and non-work needs, work flexibility is deemed by the employee as the support provided by the organization, which will be attributed to the organization’s confidence in and recognition to them. Therefore, according to the reciprocity viewpoint in social exchange theory, the employee tend to integrate the organization into their lives and internalize the organization’s goal and value system as their own parts, and their job satisfaction will increase accordingly [17]. Some studies show that supporting resources are an importance factor that can affect the employee’s job-related happiness, and emotional exhaustion [18]. Therefore, the effect of work flexibility to increase of job satisfaction depends on the employee’s perception on organizational support. If the high level of supports provided by the organization in material and spiritual aspects are perceived, the employee’s relative needs will be satisfied, and according to the person-organization fit theory, their work-related altitude and behaviours will change, which embodied as the loyalty and perception of facilitation to the organization, and the recognition and support to relevant management policy of the organization. However, if the employee fails to perceive work flexibility as a supporting resource, it will result in the opposite effect. Therefore, perceived organizational support is introduced in the study as a mediating variable. As a supporting resource, work flexibility can let employee perceive that they are valuable for the organization through meeting the employee’s role needs, which will enhance the perceived organizational support, as well as the job satisfaction. Therefore, the following hypotheses are proposed in this paper:

H3: Perceived organizational support has full mediating effect on the influence of scheduled flexibility on job satisfaction.
H4: Perceived organizational support has full mediating effect on the influence of workplace flexibility on job satisfaction.

3. Method

3.1. Sample and procedure
The study data mentioned in this paper was obtained through questionnaire survey with the subjects from employees in R&D departments of companies in the country, regardless of the regions, and totally 309 questionnaires were collected. In terms of sample structure, male subjects account to 53.72% and female subjects account to 46.28%, this is consistent with the social background of this study that a large number of females walk out of the family and join the works. Secondly, the subjects less than 30 years old account to 71.2%, and the subjects over 30 years old account to 28.8%, which shows that the new generation employees will pay more attention to their own autonomy and look forward to
work flexibility more. In addition, the ordinary employees account to 43.7%, and managerial personnel account to 56.3%, where the managerial personnel need flexible working time and workplace more to make some strategic policies.

3.2. Assessment measures

Work flexibility: In this study, work flexibility is divided into two dimensions, i.e. scheduled flexibility and workplace flexibility. The scheduled flexibility scale is derived from the scheduled flexibility scale prepared by James & Jenell et al. according to the description of flexibility concept proposed by Dansereau et al. in 1986. There are 4 items in this scale, such as “I can change my commuter time according to my preference and demands”, and Li Kete's Five Scaling Method is adopted in this scale, where 1 means strongly disagree and 5 means totally agree. The α coefficient of the scale is 0.855. The workplace flexibility scale is derived from one of the six dimensions of network office prepared by Mei Lu & Katherine et al., i.e. workplace flexibility. There are 5 items in this scale, such as “Can I work in other place of the organization (such as a branch company)”, and Li Kete's Five Scaling Method is adopted in this scale, where 1 means never and 5 means always. The α coefficient of the scale is 0.832.

Perceived organizational support: We adopted the simplified version (Farh et al. (2007)) of the “Perceived Organizational Support Scale” (POS) developed by Eisenberger et al. (1986). There are 8 items in this scale, such as “the company will consider my opinions”, “the company will give me a hand when I have some special needs”, and Li Kete's Five Scaling Method is adopted in this scale, where 1 means strongly disagree and 5 means totally agree. The α coefficient of the scale is 0.863.

Job satisfaction: We adopted the Minnesota Satisfaction Questionnaire (MSQ)-Short-Form developed by Weiss et al. in 1967, which includes three subscales and totally 20 items, and can be used to measure the overall satisfaction. The three subscales are intrinsic, extrinsic and general satisfaction subscale respectively. The items in the scale include “I agree with the company’s policy implement method”, “I have the opportunity to fully exert my abilities” etc. The Li Kete's Five Scaling Method is adopted in this scale, where 1 means very dissatisfied and 5 means very satisfied. The α coefficient of the scale is 0.949.

Based on the variables mentioned above, the following regression equation is established:

\[ Y = c_1X_1 + c_2X_2 + e_1 \]  
\[ M = a_1X_1 + a_2X_2 + e_2 \]  
\[ Y = c_1'X_1 + c_2'X_2 + bM + e_3 \]

Where, dependent variable Y represents job satisfaction; independent variable X_1 represents scheduled flexibility; independent variable X_2 represents workplace flexibility; mediating variable M represents perceived organizational support. The coefficient c_1 and c_2 in equation (1) are the total effects of scheduled flexibility and workplace flexibility on job satisfaction respectively; The coefficient a_1 and a_2 in equation (2) are the effects of scheduled flexibility and workplace flexibility on perceived organizational support; the coefficient b in equation (3) is the effect of perceived organizational support on job satisfaction under the condition that the effects of scheduled flexibility and workplace flexibility are under control; the coefficient c_1' and c_2' are the direct effects of scheduled flexibility and workplace flexibility on job satisfaction under the condition that the effect of perceived organizational support is controlled; and e1 – e3 are regression residuals.

According to the terms for effect decomposition in equation (4), mediating effect is equivalent to indirect effect, i.e. the product of coefficients a*b, and its correlation with total effect and direct effect as follows:

\[ c = c' + ab \]  

During the test, we shall verify that if H0: a=0 is rejected and H0: b=0 is rejected, the mediating effect is significant, otherwise it is not significant. When the mediating effect is significant, if c'=0, it is a full mediating effect. If c' is not equal to 0, it is a partial mediating effect.
4. Results

4.1. Correlation analysis
We use structural equation modelling to derive regression analysis through SPSS software. As shown in Table 1, the results mainly include the mean values, standard deviations and correlation coefficients of main variables. Where, the mean value of scheduled flexibility is 3 and the mean value of workplace flexibility is 2.7, which are close to the median value of 3. This shows that the scheduled flexibility and workplace flexibility of samples are of intermediate level. Both scheduled flexibility and workplace flexibility are significantly correlated with job satisfaction at the level of 0.01, this supports Hypothesis 1 and Hypothesis 2, for which a further regressive verification will be performed in this paper. Furthermore, scheduled flexibility and workplace flexibility are also significantly correlated with perceived organizational support at the level of 0.01, and the perceived organizational support is significantly correlated with job satisfaction at the level of 0.01. Two conclusions can support Hypothesis 3 and Hypothesis 4, for which a further regressive verification will be performed in this paper.

|                           | M   | SD  | Scheduled Flexibility | Workplace Flexibility | Job Satisfaction |
|---------------------------|-----|-----|-----------------------|-----------------------|------------------|
| Scheduled Flexibility     | 3.00| 0.94|                       |                       |                  |
| Workplace Flexibility     | 2.70| 0.86| 0.51**                |                       |                  |
| Job Satisfaction          | 3.57| 0.63| 0.41**                | 0.40**                | 0.77**           |
| Perceived Organizational Support | 3.32| 0.69| 0.51**                | 0.55**                |                  |

Note: *: P<0.05, **: P<0.01, ***: P<0.001

4.2. Hypothesis verification
Table 2 shows the results of hypothesis verification, and Model 4 shows that under the condition that the sex, age, education background, work category and years of working of each subject are under control, scheduled flexibility have significantly positive correlation with job satisfaction (β=0.27, p=0.001); workplace flexibility have significantly positive correlation with job satisfaction (β=0.28, p=0.001), therefore, Hypothesis 1 and Hypothesis 2 are verified, i.e. increasing work flexibility can increase job satisfaction.

Secondly, the causal steps approach proposed by Baron (1986) and Bootstrap approach are adopted to verify the mediating effect. The first step is verifying the correlation between work flexibility and job satisfaction, which has been verified in the verification of Hypothesis 1 and Hypothesis 2. The second step is verifying the correlation between work flexibility and perceived organizational support, and Model 2 in Table 2 shows that scheduled flexibility has significantly positive correlation with perceived organizational support (β=0.28, p<0.001), and workplace flexibility has significantly positive correlation with perceived organizational support (β=0.41, p<0.001). The third step is verifying the significance of mediating variable by including mediating variable based on the regression of dependent variable and independent variable, and Model 5 in Table 2 shows that after including the mediating variable- perceived organizational support, the regression coefficient of scheduled flexibility to job satisfaction changes from 0.27 to 0.05, which is no longer significant, and accordingly, $c'_{1}$ in equation (3) is equal to 0, therefore, it can be concluded that perceived organizational support acts as full mediator; the regression coefficient of workplace flexibility to job satisfaction changes from 0.28 to -0.04, which is no longer significant, and accordingly, $c'_{2}$ in equation (3) is equal to 0, perceived organizational support has significantly positive correlation with job satisfaction (β=0.78, p<0.001), and b in equation (3) is not equal to 0, therefore, it can be concluded that perceived organizational support acts as full mediator. So Hypothesis 3 and Hypothesis 4 are true, i.e. work flexibility increases employee job satisfaction completely through the mediating effect of perceived organizational support.
5. Conclusions and discussion

We conducted an in-depth and systematic analysis on the direct effect of work flexibility on employee job satisfaction, and the mediating mechanism between them, and verified relevant hypotheses through empirical study in this study. The conclusions obtained in this study have a certain theoretical and practical significance.

Firstly, this study reveals the positive effect of work flexibility on employee job satisfaction. We found that with the increasing of job satisfaction, the organizational commitment and organizational recognition will be increased, and the separation rate will reduce. The results of relevant analysis show that the implication of this conclusion to management practice is that a company can implement various flexible working modes according to the demands and positions of employees. For top managers, the company shall provide more flexibility in terms of time and place, so that they are not confined in the office and can actively communicate with customers, thus to bring more profits and competitiveness for the company. For general staff, if the company can implement work flexibility according to their demands, the employee’s recognition to the organization will be significantly increased, and the employee will work hard, and will not leave the company easily if they feel that they are trusted and appreciated by the company, which will reduce the company’s employee turnover and human cost.

Secondly, this study shows that perceived organizational support acts as full mediators between work flexibility and job satisfaction, i.e. work flexibility imposes positive effect on job satisfaction through perceived organizational support. Work flexibility is equivalent to an incentive method, which can let the employee increase their agreement with the organization, consider themselves as an important part of the organization, and work hard to contribute to the organization, thus to increase employee job satisfaction. A company shall formulate different work flexibility policies according to the employees’ actual situations. Therefore, only when the employees can realize that the organization is implementing corresponding work flexibility according to their actual needs, they will further realize the organization’s attention and concern, which will increase their perception of facilitation, and thus increase their job satisfaction.

The existing literature studied the relationship of work flexibility on work-family balance and emotion-related variables. Other literatures have proven that work flexibility can lead to emotional fatigue and increase work-family conflict. After the relationship between work flexibility and employee psychological variables and family-level variables is confirmed, it is more necessary to broaden the research to work-related variables in order to better provide management advice for the
company. Therefore, in order to make up for this gap, this study makes job satisfaction as dependent variable and perceived organizational support as a mediator, which pays more attention on the work-related variables, in order to more directly focus on the changes in the psychological level of the employees after the implementation of the work flexibility, and improve the overall job satisfaction.

Due to the confinement of some subjective or objective conditions, the study still has some deficiencies. Firstly, due to the limitation of questionnaire survey samples, this was not verified by categories in this study. More attentions can be paid to the correlations under different boundary conditions in future studies. Secondly, there may be many mediating mechanisms and various adjusting mechanisms in the effect mechanism of work flexibility on job satisfaction, which can be explored deeply and thoroughly in the future studies.

References
[1] Desrochers S and Sargent L D 2004 Organization Management Journal 1 40
[2] Hill E J, Grzywacz J G, Allen S, Blanchard V L, Matz-Costa C and Shulkin S 2008 Community Work & Family 11 149
[3] Maertz J C P and Boyar S 2011 Journal of Management 37 68
[4] Giannikis S and Mihail D 2011 The International Journal of Human Resource Management 22 417
[5] Eek F and Axmon A 2013 Scandinavian Journal of Public Health 41 692
[6] McNall L A, Masuda A D and Nicklin J M 2010 The Journal of Psychology 144 61
[7] McNamara T K, Pitt-Catsouphes M and Matz-Costa C 2013 Social Science Research 42 283
[8] Malik O F, Waheed A and Malik K U 2010 International Journal of Business & Management 5 223
[9] Casper W J and Harris C M 2008 Journal of Vocational Behaviour 72 95
[10] Rezaei A and Barzoki A S 2017 International Journal of Productivity & Quality Management 21 273
[11] Tremblay D G and Genin E 2008 Applied Research in Quality of Life 3 161
[12] Carlson D S and Grzywacz J G 2010 Journal of Managerial Psychology 25 330
[13] Hobfoll S E 1989 American Psychologist 44 513
[14] Lu L, Kao S F and Copper C L 2008 International Journal of Stress Management 15 1
[15] Michel R D J and Michel C E J 2015 Journal of Behavioural Sciences 25 78
[16] Wayne J H, Casper W J and Matthews A R 2013 Journal of Applied Psychology 98 606
[17] Pierce J L, Gardener D G and Cummings L L 1989 Academy of Management Journal 32 622
[18] Christine P and Seriger B 2009 Journal of Vocational Behaviour 75 26