EFFECTS OF SIDELINE WORK ON INDIVIDUAL WELL-BEING
UNDER THE CONTEXT OF GIG ECONOMY

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Following the rapid development of the gig economy together with people’s yearning for a happy life, there are an increasing number of individuals choosing to be occupied with sideline works on the basis of keeping their major work. In this study, a model for the influence of sideline work on individual well-being under the context of the gig economy is constructed. With empirical research on 541 individuals devoted to sideline work on digital platforms, it is revealed that sideline work involvement has a positive impact on individual well-being as well as a negative one on work-family conflict, which affects individual well-being in a negative direction in turn. Meanwhile, the work-family conflict plays a mediating role in the process of the sideline work involvement exerting influence on the individual well-being while the motivation to support the family wields a moderating effect on the relationship between work-family conflict and individual well-being.

This study makes response to the paradox of whether sideline work involvement is conducive to well-being, explores the specific mechanism of sideline work influencing individual well-being, and unveils the moderating effect of the motivation to support a family in the process of work-family conflict exerting influences on individual well-being, which drives the study on the related problems in the fields of well-being, the gig economy. In addition, in terms of constructing happy families and improving individual well-being, this study is significant in practice and guidance.

Keywords: sideline work; well-being; gig economy; motivation to support the family

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Introduction

The integration of the digital economy and the modern service industry has drawn forth new forms of work and the gig economy, a novel human resource allocation model utilizing the mobile interconnection technique to realize the fast match between labor supply and demand under the background of the digital economy (Taylor et al., 2017).

The 2022 World Happiness Report by the United Nations has that the well-being index of the Chinese people ranks the 72nd, up 22 compared with that of the year 2020. It is the sidelines work that generates well-being. The speedy developing gig economy provides more choices and chances for people who hope to strive for a happy life through hard work. Those individuals with major work can seek sideline works that are by their competencies on the digital platforms and gain rewards after finishing tasks by paying out time and labor.

The Laodong Daily (2022) has made it clear that at present, 51.85% of the people in the workplace confess they employ themselves in sideline work. The works characterized by resilience in time and low entry threshold become hotcakes. Judging from the above, it can be figured out that the number of individuals choosing to go in for sidelines is descending while those sidelines with relatively resilient working hours are on the top list.

It will take 60% and above the time of individuals to deal with the affairs related to their major work. Engaging in a sideline means that it is necessary to devote more time and energy apart from the original involvement. Therefore, what influences will such resource input exert on individual life and family? Will it enhance individual well-being or reduce it? Concerning the few types of research on relevant matters, there is still room for discussion at both the theoretical and practical levels.

Research hypothesis

**Sideline's work involvement and individual well-being**

Work involvement is a crucial factor affecting individual well-being. However, among the existing research on the relationship between work involvement and individual well-being, there is a void of consistent conclusions. Researchers mainly hold two points of view, that is, with negative impact and with positive impact.

Those who believe in positive impact argue that work involvement brings an active effect on enhancing individual well-being (Shimazu & Schaufeli, 2008; Matz-Costa C et al., 2014), which means that the more the employees are devoted, the more energetic they are, and the intense the sense of participation in the activities they are engaged in.

They will develop the idea that they are indispensable parts of the assignments and be able to engross in the work activities (Harter et al.,2002; Halbesleben & Wheeler, 2008) as well as predict positive-going well-being. The vibration dimension of work involvement can dispel depression while work involvement plays a significant role in individual well-being and soundness in body and mind (Innstrand et al., 2012).

From the perspective of the positive impact, individuals with high devotion behave enthusiastically at work, gain a sense of pride and significance, and take along such upward moods into the family, which contributes to enhancing individual well-being.

Therefore, the study assumes that:

H1: Sideline works have an affirmative effect on individual well-being.
**Sideline work involvement and work-family conflict**

Some scholars reckon that when individuals are endowed with more rights to manage their affairs in resource allocation, they can allocate resources such as time and energy reasonably, which can not only make them better complete the tasks but also generate more resilient moods and positive attitudes in them while working.

They will also take along such positive moods into the family, thus better fulfilling the family demands (Bian & Qian, 2016) and demonstrating the proactive side. If people choose to work on digital platforms behind the scenes, there is relative freedom in terms of working hours and assignments.

As a result, when they allocate personal resources, they have more independent rights and can balance the relationship between work and family forwardly to some extent. Allocation of personal resources to non-essential needs can bring new income to family resources, including increased family income, awareness of self-worth, and the development of positive attitudes. Currently, sideline work involvement presents a more positive impact on work-family conflict, with specific performance significantly reducing work-family conflicts.

Therefore, the study assumes that:

H2: Sideline work involvement has a negative impact on work-family conflict.

**Work-family conflict and individual well-being**

Work-family conflict, considered a potential source of pressure, has a negative-going influence on well-being and behavior (Geurts et al., 2003). Facing the conflict in work and family demands, people often need to give priority to meeting occupational needs.

Because of the dissatisfied family needs, family members will complain, leading to a higher level of work-family conflict. Regarding the negative results of work-family conflict, in some studies, it is deemed that work-family conflict can give rise to work and family dejection and produce depression (Frone et al., 1992), and cause ascending emotional exhaustion and stress (Karambayya & Reilly, 1992). When people experience high-level work-family conflict due to reduced time, energy, and other individual resources, they experience a decline in personal well-being.

Thus, high-level conflict between work and family can reduce individual well-being. Therefore, the study assumes that:

H3: Work-family conflict has a negative impact on individual well-being.

**The mediating role of work-family conflict**

On account of the high freedom and flexibility of the sideline works on digital platforms (Zhen & Yang, 2019), in selecting assignment content and deadline, individuals also enjoy a high degree of autonomy. The process of individuals completing sideline work will exert an influence on the existing work-family relationship.

To enhance individual well-being is one of the major objectives for individuals to be occupied on the sidelines, but the shift in the work-family relationship will be influential to the individual experience in well-being.

When the work-family conflict intensifies, it will hurt no matter the individual’s physical and mental health, work, or life satisfaction (Li et al., 2015). If the work-family conflict relieves, individuals tend to output active attitudes or behaviors (Carlson et al.,
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2006). It follows that work-family conflict may play a mediating role between sideline work involvement and individual well-being.

Therefore, the study assumes that:

H4: The work-family conflict plays a mediating role in the process of the sideline work involvement exerting influence on individual well-being.

**The Moderating Effect of motivation to support the family**

The motivation to support the family is a special pro-social behavior, which refers to the behavior of maintaining the family life through own efforts (Grant, 2008). According to studies, for the purpose of supporting the family, individuals will be energetic in performing their duties well even if the work is boring and insipid, thus producing some positive prediction effects on work performance (Menges et al., 2017).

When individual motivation to support the family is connected with work, there will be an active impact on individual working behaviors. When individuals are strongly motivated by the need to support the family, they will regard the work as a source of income for their families and will invigorate their work by linking the work they do to the values of maintaining their family life (Menges et al., 2017).

Furthermore, when the individual motivation to support the family is intense, they will achieve an emotionally positive and energetic work engagement state through energy input and positive experience (Su et al., 2020).

Striving hard to take care of the family is a significant manifestation of self-worth. When individuals are frustrated at work, they can ponder over the working value with the remainder of working for the family. The gratitude expressed by a family who is benefiting from their work will assist in coping with the negative emotions brought by a bad working environment (Greenhaus & Powell, 2006). To some extent, the stubborn pursuit of family at work may mediate the relationship between work-family conflict and personal well-being.

Therefore, the study assumes that:

H5: Motivation to support the family in sideline work can regulate the influence of work-family conflict on individual well-being. Under the high level of motivation, the influence of work-family conflict on individual well-being will be weakened.

Based on the above research hypotheses, the conceptual model is constructed as shown in Fig. 1.

![Figure 1 - The conceptual model (made by co-authors)]
Research methodologies

Data acquisition
The data acquisition taking place in this study is carried out through a questionnaire survey. From May to July, 2022, network questionnaire platforms were utilized to distribute and collect electronic questionnaires. The respondents are individuals engaged in major works as well as sidelines on digital platforms, mainly including We business, We media operation, and orders taken from knowledge-base platforms, etc.

There are 675 questionnaires collected through the online questionnaire platforms in total. After screening the questionnaires effectively and eliminating the invalid ones, 541 valid questionnaires were finally acquired, reaching the effective sample recuperation rate of 80.15%. The demographic distribution of the samples is as follows: in terms of gender, the percentage of men and women is 53.05% and 46.95% respectively.

Considering age, the youngest is 18, the oldest is 58, and the average age is 32.23.

Regarding educational background, they are mainly under undergraduate degrees, accounting for 86.69%. In marital status, married people account for 52.87%. And in the aspect of working years, the shortest is 1 year, the longest is 36 years, and the average is 9.84 years.

Scale source
The variable measurement scales involved in this study all refer to the published and mature scales at home and abroad. After two-way translation, they are modified and combined with the modified opinions of experts and sideline workers, so that the items used can be adapted to the Chinese situation and conform to the Chinese semantic expression.

Sideline work involvement. The UWES scale developed by Schaufeli et al. (2002) is adopted to measure individual side work input, including nine items, with a Cronbach's α coefficient of 0.928.

Work-family conflict. The scale developed by Netemeyer et al. (1996) is used. It contains five items, and Cronbach's α coefficient is 0.933.

Individual well-being. For individual well-being, it was measured by two variables, namely life satisfaction and positive emotion. For life satisfaction, the scale developed by Diener & Emmons (1985) is employed. It includes 5 items. Meanwhile, for positive emotion, the scale developed by Price (1997) is used. It contains 4 items. After combination, there are 9 items, and Cronbach's α coefficient of the scale is 0.918.

Motivation to support the family. The scale developed by Menges et al. (2017) is used. It involves 5 items and Cronbach's α coefficient is 0.945.

Controlled variable. Referring to general organizational behavior studies, demographic characteristics-related variables are selected as control variables in this study, including individual gender, age, educational background, marital status, and years of work.

Research results

Confirmatory factor analysis and discriminant validity test
Aiming at testing the discriminant validity between all variables in the model, this study examined the models using confirmatory factor analysis (CFA), comparing the one-factor, two-factor, three-factor, and four-factor models, as shown in Tab.1 below.
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The results show that the four-factor model data have the best fit, indicating that the four factors included in this study have good discriminant validity.

Table 1 - Results of the confirmatory factor analysis
(made by co-authors)

<table>
<thead>
<tr>
<th>Model</th>
<th>( \chi^2 )</th>
<th>df</th>
<th>( \chi^2/df )</th>
<th>RMSEA</th>
<th>NNFI</th>
<th>CFI</th>
<th>TLI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Four-factor model</td>
<td>1605.550</td>
<td>344</td>
<td>4.667</td>
<td>0.082</td>
<td>0.884</td>
<td>0.895</td>
<td>0.895</td>
</tr>
<tr>
<td>Three-factor model</td>
<td>3444.180</td>
<td>347</td>
<td>9.926</td>
<td>0.129</td>
<td>0.719</td>
<td>0.742</td>
<td>0.719</td>
</tr>
<tr>
<td>Two-factor model</td>
<td>5762.042</td>
<td>349</td>
<td>16.510</td>
<td>0.169</td>
<td>0.511</td>
<td>0.548</td>
<td>0.511</td>
</tr>
<tr>
<td>One-factor model</td>
<td>7050.564</td>
<td>350</td>
<td>20.144</td>
<td>0.188</td>
<td>0.396</td>
<td>0.441</td>
<td>0.396</td>
</tr>
</tbody>
</table>

Note: Four-factor model: sideline work involvement, work-family conflict, motivation to support the family, individual well-being. Three-factor model: sideline work involvement + work-family conflict, motivation to support the family, individual well-being. Two-factor model: sideline work involvement + work-family conflict + motivation to support the family, individual well-being. One-factor model: sideline work involvement + work-family conflict + motivation to support the family + individual well-being.

Common method biases
In this study, the Harman one-factor test method is selected to test the common method biases in sample data. According to the analysis results, the KMO of this study is 0.941, which is greater than 0.6, meaning that the data can be used for the factor analysis study. For Principal Component Analysis, five factors are extracted with an eigen value greater than 1, explaining 74.904% of the total variation.
Where into, the eigen value of the first factor is 10.288%, explaining 36.743% of the variation, failing to occupy half of the total variation interpretation, indicating that there is no one factor that can explain most of the variation. Therefore, it can be judged that there is no serious common method bias in the data of this study.

Correlation analysis
The mean, the standard deviation, and the correlation coefficient are listed in Table 2. Sideline work involvement is in a significant negative correlation with work-family conflict (\( r = -0.405, p < 0.01 \)), and in a significant positive correlation with individual well-being (\( r = 0.591, p < 0.01 \)), while work-family conflict is in a significant negative correlation with individual well-being (\( r = -0.333, p < 0.01 \)).
The relationship between the variables in this study was initially verified, and these correlations coincided with the study expectations, providing initial support for subsequent hypothesis verification.
Table 2 - Mean value, standard deviation, and correlation coefficient of each variable
(made by co-authors)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean value</th>
<th>Standard deviation</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. Sideline work involvement</td>
<td>3.687</td>
<td>0.822</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Work-family conflict</td>
<td>2.103</td>
<td>0.764</td>
<td>-0.405*</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Individual well-being</td>
<td>3.395</td>
<td>0.797</td>
<td>0.591**</td>
<td>-0.333**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Motivation to support the family</td>
<td>3.611</td>
<td>1.150</td>
<td>0.276**</td>
<td>-0.041</td>
<td>0.145*</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Gender</td>
<td>1.470</td>
<td>0.500</td>
<td>-0.013</td>
<td>-0.037</td>
<td>-0.016</td>
<td>-0.033</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Age</td>
<td>32.235</td>
<td>8.723</td>
<td>-0.053</td>
<td>0.062</td>
<td>0.005</td>
<td>-0.145**</td>
<td>0.058</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Educational degree</td>
<td>2.603</td>
<td>0.934</td>
<td>0.024</td>
<td>-0.037</td>
<td>0.040</td>
<td>-0.111**</td>
<td>0.087</td>
<td>0.104*</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>8. Marital status</td>
<td>1.471</td>
<td>0.500</td>
<td>0.063</td>
<td>-0.046</td>
<td>0.012</td>
<td>0.074</td>
<td>-0.057</td>
<td>-0.676**</td>
<td>-0.074</td>
<td>1</td>
</tr>
<tr>
<td>9. Years of work</td>
<td>9.839</td>
<td>8.459</td>
<td>-0.040</td>
<td>0.080</td>
<td>0.006</td>
<td>-0.091*</td>
<td>0.020</td>
<td>0.958**</td>
<td>-0.097</td>
<td>-0.625**</td>
</tr>
</tbody>
</table>

Note: * indicates significant at the 0.05 level, and ** means significant at the 0.01 level.

Hypothesis test results
According to the results of Model 1 in Table 3, sideline work involvement has a significant positive effect on individual well-being ($\beta = 0.591$, $p < 0.01$), thus supporting hypothesis H1.

According to the results of Model 5, sideline work involvement has a significant negative effect on work-family conflict ($\beta = -0.405$, $p < 0.01$), hence supporting hypothesis H2.

Then known from the results of Model 2, the work-family conflict has a significant negative effect on individual well-being ($\beta = -0.333$, $p < 0.01$), supporting hypothesis H3 therefore.

In addition, the mediating effect of work-family conflict was examined. The indirect effect of sideline work involvement on individual well-being through work-family conflict was 0.045, and the 95% confidence interval was [0.010, 0.087], excluding 0, indicating that the mediating effect of work-family conflict between sideline work involvement and individual well-being is significant.

Thus, hypothesis H4 is supported.

Results of Model 4 in Table 3 reveal that the interaction term of work-family conflict and motivation to support the family significantly positively affects individual well-being ($\beta = 0.109$, $p < 0.01$), hence supporting hypothesis H5.
Table 3 - Results of the hierarchical regression analysis
(made by co-authors)

<table>
<thead>
<tr>
<th></th>
<th>Individual well-being</th>
<th>Work-family conflict</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Model 1</td>
<td>Model 2</td>
</tr>
<tr>
<td>Independent variable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sideline work involvement</td>
<td>0.591**</td>
<td>0.546**</td>
</tr>
<tr>
<td>Mediator variable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work-family conflict</td>
<td>-0.333**</td>
<td>-0.111**</td>
</tr>
<tr>
<td>Moderator variable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Motivation to support the family</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interactive items</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work-family conflict $\times$ Motivation to support the family</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

$R^2$ 0.350 0.111 0.360 0.142 0.164
Moderated $R^2$ 0.349 0.109 0.358 0.137 0.163
Value $F$ 289.883** 67.115** 151.388** 29.674** 105.829**

Note: * indicates significant at the 0.05 level, and ** means significant at the 0.01 level.

Discussion

Research conclusion
In this study, the influence mechanism of individual engagement in sideline works on individual well-being in the context of the gig economy and examines the mediating role of work-family conflict and the moderating role of motivation to support the family, with results demonstrating that firstly, sideline work involvement positively affects individual well-being and negatively affects work-family conflict, which negatively affects individual well-being. Secondly, work-family conflict plays a mediating role between sideline work involvement and individual well-being. And finally, the motivation to support the family plays a moderating role between work-family conflict and individual well-being.

Theoretical significance
First of all, it responds to the paradox of whether sideline work involvement is conducive to well-being and enriches related research in the field of well-being. The context of the gig economy, allows individuals to obtain one-time work from digital platforms with the freedom to arrange working hours and choose the type of work (Thomas, 2018).

As a result, when individuals engage on the sidelines on digital platforms, they will enjoy higher autonomy in choosing work tasks. Autonomy can significantly promote well-being (Su et al., 2018), and individuals can also enjoy more flexibility and liberty in inputting...
on the sidelines. At this moment, the concept of work involved is itself a positive experience of the individual (Schaufeli et al., 2002).

When they are facing work, emotional experiences with positivity will be generated in them (Hu & Wang, 2014), who will show a positive work commitment. Based on the concept of positive influence, people with high levels of work engagement show full enthusiasm for work, gain a sense of pride and significance from work, and transfer these positive emotions to the family field, which helps to improve the well-being of the person.

Secondly, it explores the specific mechanism of sideline work affecting individual well-being, figuring out the mediating role of work-family conflict. Sideline work involvement affects individual well-being through work-family conflict, while high-level work-family conflicts lead to emotional exhaustion and increasing stress (Karambayya & Reilly, 1992), thus reducing individual well-being experience.

This study, is based on the high freedom and flexibility of sideline works on digital platforms which are featured by fragmentation, resilience, and labor skills, etc. (Zheng & Yang, 2019).

The individuals can enjoy profound autonomy in allocating personal resources. They can fully consider and seek the balance between work and family, and reduce the individual resource consumption of work-family conflict, thus maintaining or improving individual well-being.

And then, it reveals the moderating effect of work-family conflict on individual well-being and extends the related research on the role of motivation to support the family as a modulator. The motivation to support the family, as a special pro-social behavior, instead of being under the direct impact of the working environment and work characteristics, is influenced by own characteristics and family obligations (Menges et al., 2017).

When the individuals are strongly motivated to support the family, through the energy charge and positive experience, they are emotionally positive and physically energetic, thus devoting to work at a higher level (Su et al, 2020).

The gratitude shown by the family who benefited from their hard work resources can help individuals moderate negative emotions (Greenhaus & Powell, 2006). It is revealed in this study that motivation to support the family can play a significant role in the negative relationship between work-family conflict and individual well-being. When the motivation for sidelines is to support the family, a high level of motivation will weaken the negative relationship between work-family conflict and individual well-being.

Practical significance
First, it can serve as a practical guide to building a happy family. The results of this study, that work-family conflicts seriously affect people's sense of well-being, suggest that while work is very important, it is necessary to understand how to balance the relationship between work and family life.

People doing minor things are fighting for the family. They receive more economic benefits and improve the standard of family life. Meanwhile, they also need to take on the responsibility of family members, accompany the family with high quality, bring a positive attitude to the family culture, strive for understanding and tolerance of other family members, and build a harmonious happy family together with them.

Moreover, it provides ideas for individuals to improve their well-being through sideline work. The obvious result of engaging in sideline work is to increase income. There is a
certain relationship between income and well-being, which, however, does not mean that the higher the income, the higher the well-being.

From the perspective of individual self-management, it is suggested to view the relationship between income and well-being appropriately, learn to balance the allocation of personal resources, moderately consume in the sidelines, and avoid more intense family conflicts affecting individual well-being caused by the failure in shouldering family responsibilities due to the pursuit of higher income.

**Research limitations and visions**

First, there is a gap in the consideration of other important variables regarding side jobs affecting individual well-being, which may lead to a simplification of the content of this study due to complex management issues. Future studies may deepen the theoretical research, such as discussing the impact of the gig economy on human resources and improving the existing theoretical models.

Secondly, there are limitations in the selection of scales. Although the reliability and validity tests of the scales all meet the measurement standards, most of them are from foreign studies and may lack some applicability to local samples. In future studies, scholars can try to develop localized scales for these research constructs and conduct them more profoundly.

Thirdly, concerning the study sample, it may be limited by time, region, sampling methods, etc. It is feasible for future studies to further improve and expand the scope of sample selection, try to cover a wider survey range and more industries, verify the hypothesis of this study in a wider sample, and avoid the problem of data homology error.

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Laodong Daily. (2022). *Workplace issue| employees working in two units with eight hours shift system was fired by the original unit! How to view the phenomenon of part-time jobs? Available online: https://reurl.cc/bGKeg6*


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