The Impact of Compressed Workweek Arrangements on Job Stress, Work-Life Balance, and Work Productivity of Rank-and-File Employees from Different Industries in Metro Manila

Roma C. Paje\textsuperscript{1*} Paola Beatriz A. Escobar\textsuperscript{1} Anna Monica R. Ruaya\textsuperscript{1} Paula Andrea F. Sulit\textsuperscript{1}
\textsuperscript{1}College of Commerce and Business Administration, University of Santo Tomas

Abstract. As the global work setting continues to evolve, the demand for workplace flexibility is profoundly increasing. Compressed workweek (CWW) is an alternative work arrangement currently being considered for institutionalization in the Philippines. This study aims to investigate on the probable impact of CWW on job stress, work-life balance, and work productivity. A total of three hundred fifty (350) respondents from Metro Manila were selected to participate in this study. Data obtained were loaded into SPSS v. 22 and AMOS v. 24 for analysis. Results were shown through a Structural Equation Model (SEM) and revealed that implementation of CWW reduces job stress, which effect enhances work-life balance and work productivity. Findings of this study would benefit employers who intend to execute the said scheme considering its potential advantages and disadvantages once institutionalized.

1. Introduction
For the past decades, many organizations around the world have been adopting flexible work arrangements as the landscape of work is redefined by the rapidly changing sociodemographics and labor market conditions [1]. Consequently, flexibility in the workplace continues to become more indispensable for both small and large organizations. For many organizations, flexible work arrangements are being offered to employees because of the benefits it may produce for both the employee and employer [2]. According to Almeida and Davis [3], flexible work arrangements encompass deviation from the traditional work schedule. Examples of these work arrangements include flexible time, telecommuting, work from home scheme part-time work, and compressed workweek. Among all these, compressed workweek is quickly becoming a trend [4]. Through this scheme, employers opt to implement a shortened workweek with increased hours of work in a day [5].

Compressed workweek (CWW) is a flexible working arrangement in which the number of days employees report to work is reduced, but making them render work for more than 8 hours each day. Shortened days give employees two to three more days off allowing them to have more time for their personal and family life [6]. In a study by Joyce [7], CWW showed to have a positive impact on an employee’s level of job and work schedule satisfaction. However, it does not decrease the absenteeism of employees. It was emphasized that CWW is seen by employees as something that will give them more time for their family, friends, and self [8]. Also, the same study concluded that employees who
perceive CWW through the compensation and benefits lens tend to favor the work schedule. Meanwhile, employees who are not pleased with the integral facet of their jobs perceive CWW desirably, that came to the point when they view job improvements as the result of CWW [8].

Stress is a phenomenon that affects millions of lives each day which is increasingly evident in the workplace. It refers to the condition in which physiological and psychological imbalances are brought about by an individual’s inability to cope with demands. One of the most common roots of stress comes from the demands of one’s job. In a study conducted by Ekienabor [9] job stress is described as “the adverse psychological and physical reactions that occurs in an individual because of his or her inability to cope with the demands of his or her job”. Stress in the workplace or occupational stress often originates from responsibilities and requirements that do not align with a person’s knowledge and skills and orientation and eventually results to inability to cope known as stressors.

In 2017, a study on the effects of work stress on the general health of hospital nurses in South Africa was conducted by Khamisa, Peltzer, Ilic, and Oldenburg [10], and it turned out that prolonged work stress has a negative impact on the physical and mental health of employees. Although most of the factors presented above are physically manifested by an individual experiencing stress, signs of stress do not only show through such means as stress may also transpire psychologically. Acute emotional responses to stress may involve anxiety, depression, irritability, and fatigue. Additionally, signs of stress can also be manifested through one’s behavior and way of thinking. People under stress often feel withdrawn and have a difficult time concentrating [11].

In a study conducted by Naqvi [12], job stress is recognized to have a negative impact on the productivity of an employee. It was also found that executing flexible work schedule highly impacts productivity, improving the work-life balance of an employee [13]. On the other hand, a study by Hoboubi [14] revealed that the relationship between job stress and productivity indices was not statistically significant, contradicting the previous findings. On the other hand, a Pakistan study found that job stress is negatively related to an employee’s job performance [15].

Work-life balance (WLB) is a versatile concept and is often observed on the balance between life commitments and work [16]. In a study by White, [17] it was described that WLB is needed for people to find a good fit between their private and professional lives. In the same study, it was stated that an employee can better juggle personal and work commitments if the company has good functional information systems to lessen the employee’s issue on WLB. Meanwhile, Edralin [18] defined WLB as the “degree to which an individual is able to simultaneously balance the temporal, emotional, and behavioral demands of both paid work and family responsibilities”. Because a shortened workweek is a main constituent of compressed workweek, it can allow employees to spend more time with themselves and their families, achieving a well balanced work and personal life.

In the Philippines, CWW is one of the few flexible work arrangements allowed by law. Under the said arrangement, the number of days employees may report to work is reduced to less than 6 days. However, it must also be noted that the maximum number of working hours per week of 48 hours remains as is. Nonetheless, this should not prejudice companies whose normal workweek is 5 days, or a total of 40 hours with 8 hours of work in a day because the scheme can be adjusted accordingly.

While flexible work arrangements have become a topic of research interest in the world of human resources, impacts of these arrangements remain unclear in many parts of Asia and Latin America [1]. Further, there was little to no study found in the Philippine context. This study seeks to provide a model depicting the impact of implementing a compressed workweek scheme on work-life balance, job stress, as well as work productivity of rank-and file employees in Metro Manila. Furthermore, findings of this study can be used to weigh whether the proposed bill may or may not be the way to go for Filipino workers once it had been institutionalized. This will not only contribute to the existing literature on compressed workweek, but also provide meaningful information as basis for making strategic decisions in managing human resources in the Philippine context.
2. Methodology

2.1. Design
The approach that was carried out in the study was quantitative, examining the relationship of compressed workweek (CWW) to job stress (JS) and work-life balance (WLB), as well as job stress and work-life balance to work productivity (WP). The Structural Equation Modeling (SEM) was employed to analyze the collected data. SEM, is a widely-used statistical tool used to find the relationship between causal models using statistical data and theoretical assumptions [19]. The model integrated four variables, one of which is a manifest variable while the three others are latent variables. Specifically, the manifest variable consists of compressed workweek, while the latent variables consist of job stress, work-life balance, and work productivity.

2.2. Sample and Study Site
Rank-and-file employees coming from different industries within Metro Manila were invited to participate in this study. A cross-sectional approach was employed to secure 175 respondents from companies practicing compressed workweek, while 175 respondents were obtained from companies practicing normal working hours—for a total of 350 respondents. CWW respondents are employed in the financial services, real estate, BPO, cooperative, consulting, manufacturing, retail, and transportation industries. Meanwhile, non-CWW respondents came from the IT, BPO, export, food, manufacturing, manning agency, retail, telecommunications, pharmaceutical distribution, and transportation industries. The equal partition of CWW companies and non-CWW companies was done to closely compare the impacts of either of the schemes, particularly on job stress, work-life balance, and work productivity. The said area was selected as the locus of the study for its dense population of offices and workers. To ensure that the accuracy of data to be gathered, rank-and-file employees were selected as the subjects of the study. As non-managerial employees, they are the ones covered by the provisions in the Labor Code, including the provisions on compressed workweek. Consequently, they are the ones that can be affected by the scheme and possess the overall outlook of its impacts specifically on job stress, work-life balance, and work productivity.

2.3. Data Gathering
Before identifying the potential respondents qualified to engage in the study, a crowdsourcing was done through the Philippine HR Group, a Facebook-based membership group for HR professionals under PHILHRG Inc.—a duly registered non-stock, non-profit organization in the Philippines. Through this platform, researchers sought the attention of HR practitioners who are implementing compressed workweek arrangements in their respective companies. Prior to conducting the study, letters of consent were sent to pertinent HR departments to formally seek their permission before distributing the intended questionnaire. Out of the 200 questionnaires that were distributed to CWW respondents, only 181 were retrieved, and only 175 were valid. Gathering of data for CWW and non-CWW were done simultaneously, however, respondents for CWW were prioritized as potential respondents for this inclusion criterion are limited. As for non-CWW respondents, a total of 175 questionnaires were also collected.

2.4. Data Analysis
To analyze the demographic profile of the respondents, descriptive statistics was utilized. For the following parts, Structural Equation Model (SEM) was applied to analyze the data collected to explain the correlation of implementing compressed workweek arrangement on employee’s job stress, work-life balance and work productivity. The said model was loaded into SPSS for Windows version 22 and AMOS version 24 for further analysis.
2.5. **Hypothesis of study**

The hypothesis of this study are stated as follow. 

**H1**: Employees with a compressed workweek schedule are more likely to experience job stress than those with a normal work schedule.  

**H2**: Higher level of job stress reduces work productivity.  

**H3**: Employees with a compressed workweek schedule are most likely to have a more balanced work and personal life than those with a normal work schedule.  

**H4**: A well-balanced work and personal life increases work productivity.  

Figure 1 shows the relationship between the variables studied.

![Figure 1. Hypothesized model depicting the impact of compressed workweek on job stress, worklife balance, and work productivity of rank-and-file employees from different industries in Metro Manila](image)

3. **Result**

Based on the results, the demographic profile of the respondents are stated as follow. More than half are female (222 or 63.40%), majority are single (232 or 66.30%), and fall within the age range of 21-25 (110 or 31.43%). Majority of the respondents have children (217 or 62%), and a considerable number of them are supporting a single child (63 or 18%). As for the work location, many are based in Quezon City (96 or 27.4%). Most of the respondents work in the Business Process Outsourcing (BPO) industry (82 or 23.40%). Other participants of the study whose industries where they belong in are not specified in the questionnaire work in the food, information technology, manning agency, direct selling, ship manning, pharmaceutical distribution, logistics, and cooperative industries. Lastly, many of the respondents have worked for 1-3 years (98 or 28%) in their respective companies.

The exploratory factor analysis of work productivity (WP) result is stated as follow. WP has three dimensions, namely: Task Efficiency (TE), Quantity of Work (QW), and Attendance (A). TE shows how the employees were able to perform their jobs properly and it has the highest impact when the time employees spent in doing work is lower than what they expect of themselves (β = .935). Another significant factor for TE is when employees experience troubles in organizing their work and setting their priorities (β = .826), while the lowest impact for this dimension is when employees fall asleep unexpectedly or become very sleepy at work (β = .478). The most notable factors undermining quantity of work on is when an employee asks a co-worker to redo something he or she has done (β = .767), and when a supervisor asks the employee to do the job again because of a mistake committed (β = .743). Lastly, the factor that has the strongest impact on attendance includes employees not being able to do any work when they are expected to be working (β = .811), while the least notable factor for this dimension is when employees arrive at work late or leave work early (β = .268). Employees must strictly comply with the work schedule given to them unless they have a valid excuse for being late or for leaving work early.
The regression weights of work-life balance result is stated as follow. According to the results, WLB is most evident when employees can perform their job well and home-related duties adequately ($\beta = .86$). This suggests that employees can perform both their job and household duties satisfactorily. WLB is also highly evident when employees can manage both the demands of their jobs with their personal or family life ($\beta = .85$). The least significant factor manifesting WLB is how employees manage their time to accommodate the demands of their work and personal life ($\beta = .79$). This factor appears to be the weakest among the others as attitude towards time management may vary from one individual to another.

Structural Equation Modeling (SEM) was employed to analyze the collected data by determining the causal relationship of the variables. The emerging model revealed that implementation of compressed workweek negatively relates to job stress ($\beta = -.20$). Additionally, both the two underlying dimensions of job stress, namely job-related anxiety ($\beta = .92$) and time pressure ($\beta = .94$), strongly affected the latent construct. Meanwhile, job stress and work productivity were found to have a positive relationship—denying the hypothesis that higher level of job stress reduces work productivity ($\beta = .44$). As for work productivity, quantity of work was revealed to have the strongest impact ($\beta = .97$) on the latent construct among the two other dimensions namely task efficiency ($\beta = .85$) and attendance ($\beta = .77$). Moreover, the emerging model also showed that compressed workweek has no relationship with the work-life balance of surveyed employees. Work-life balance did not show any relationship with compressed workweek. The emerging model revealed that work-life balance does not have any effect on work productivity. Surprisingly, it also revealed that it has a positive correlation with job stress ($\beta = .50$).

Thus overall, the findings that implementing compressed workweek reduces job stress is in line with findings of [3] wherein respondents believe that stress is reduced if there is flexibility at work. This denies the first hypothesis that employees with a CWW schedule are more likely to experience job stress than those with a normal work schedule. In general, flexible work arrangements are developed to help employees manage their workload and personal life to encourage more efficiency in work [3]. Ultimately, it is also the employee's responsibility to explore and understand the content and goals of his job for him to find ways how to cope up with balancing work and life [20]. Also, it should be noted that its impact on job stress remains significant despite the responses of surveyed employees under CWW as many of them revealed that the total hours of work they are required to render in a day is nine (9) hours—only an hour deviated from the normal work schedule.

Accordingly, results showed that the less stressed employees are in their job, the more productive they become. This indicates the importance of creating a working environment where employees can perform efficiently through continuous monitoring of factors that contribute to stress [12]. In the study of Bloom, Kretschmer, and Van Reenen [21], implementing better flexible work arrangements can be associated with significantly higher productivity. For an organization to obtain the benefits of CWW without any significant costs, the implementation of reducing the number of work days from six (6) to five (5) should be well planned and successfully [21].

Third, there is no direct impact between compressed workweek and work-life balance as first shown in the hypothesis. Employees under a non-CWW scheme have equal percentage of work-life balance with employees under CWW. Possibly, the rationale behind this result is that a five-day workweek may be considered as a CWW arrangement in the Philippines, unlike in other countries where CWW is defined as a four-day workweek [4] Similarly, employees not under a CWW scheme may also have a normal workweek of five days.

Fourth, a correlation between job stress and work-life balance also surfaced in the results. The less stressed employees are, the more time they have for work and personal life. A study concluded that the impact on changing work schedule will most likely be evident on the employee's leisure activities and time for family [22]. Moreover, factors such as inadequate work content, social support, poor teamwork, dissatisfaction with staff turnovers, interruptions, and disturbances in the job, and over commitment are said to have much more influence in comparison to the impact of work schedules.
An employee experiencing these work-related stressors will most likely be clouded with undesirable thoughts which may greatly influence their personal life. Lastly, work-life balance has no direct impact on work productivity. This result is in line with the study of Bloom et al. [21] stating that work-life balance will only be associated with work productivity when good management is taken into account. In the same study, they also said that when organizations have better management, they are more likely to obtain both higher productivity and better work-life balance [21].

4. Conclusion
This study suggests that compressed workweek is a feasible alternate working scheme that companies can consider. Given the findings, it could be concluded that an additional day off will lessen the risks and negative effects brought by working for more than eight hours each day for five to six days. Employees may feel anxious and pressured when they cannot cope up with the quantity of work. Thus, the importance of monitoring and managing employee job stress is emphasized since it is a factor that affects productivity. Different dimensions of job stress that may be of interference with employees’ overall health, productivity, and performance are identified to help management to determine what approach must be done to improve stress management. It is also worth to mention that the study also showed that a six-day workweek that is reduced to five or four days of work has no direct effect on the work-life balance of employees; instead, a positive relation between job stress and work-life balance manifested in the results. It appears that work-life balance becomes more evident when employees can manage and equally spend time for both their work and personal lives.

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