



The Effect of COVID-19 on White-Collar Workers: The DPSIR Model and Its Semantic Aspect in Indonesia

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Abstract

Initially, white-collar workers would do implement their activities by working from the office (WFO) but later changed to working from home (WFH) during COVID-19. This study aims to analyze the effect of the pandemic on white-collar workers based on the driver-pressure-state-impact-response (DPSIR) model and semantic aspect. Respondents came from 22 provinces in Indonesia. The study used a sequential mixed methods design to reveal the significance between DPSIR components and to understand the meaning of symbols or signs. The results showed that there is a significant gender difference, specifically in the driver (D). The correlation value of P-S, S-I, and I-R in men was more significant than in women ($p < 0.05$). Men expressed more statements about the COVID-19 effect than did women. They used adverbs with adjective words, showing that the pandemic requires a proper adaptation, although, at the same time, they felt difficult, bored, and depressed. Based on these analyses, institutions need to pay more attention to the work efficiency and work-life balance of their workers.

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1. Introduction

In most countries, governments impose restrictions on community activities through physical and social distancing to reduce the rate of virus transmission (Abidah et al., 2020). However, the spread of SARS-CoV-2 widely affects human life because it paralyzes economic sectors and triggers crises in society. According to Eichhorst et al. (2021), this situation leads to layoffs for blue-collar workers due to disruptions in production and marketing activities. Therefore, the business ecosystem needs to prioritize the safety of its workers (Eichhorst et al., 2021). This then requires office activities to change to working from home (WFH). In essential sectors, WFO or hybrid model is occasionally carried out with a limited number of workers despite implementing strict health protocols (Grzegorzczak et al., 2021).

Initially, white-collar workers usually perform the task for 40 hours per week in their offices from Monday to Friday before the occurrence of the pandemic (Harahap & Hamid, 2020). Excess working hours tend to generate additional income for them because it is counted as overtime. According to Davidescu et al. (2020), WFH leads to flexible working hours during the pandemic because it specifies that workers need to be ready at all times. WFH is not as simple as people thought due to the conditions that become determining factors for workers' harmonious lifestyle. Therefore, sustainability among white-collar workers during COVID-19 needs to be the bone of contention. This is because improper individual adaptation decreases their work productivity and threatens the institution's performance (Rudolph et al., 2021). According to Felstead and Henseke (2017) and Oliver (2021), large institutions have been implementing this work model since the internet and mobile gadgets era despite being limited to remote working or teleworking.

The study by Larrea-Araujo et al. (2021) showed that WFH triggers the emergence of joint diseases in the neck and wrists because it is caused by ergonomics during the pandemic. Therefore, physical discomfort promotes workers who work from home to ignore health and anxiety (Nastiti & Rusvitawati, 2021). Workers in certain managerial positions tend to

perform more intensive and longer meeting activities because it increases costs for communication and coordination (Gibbs et al., 2021; Teodorovicz et al., 2021). Meanwhile, those who work by using creative and critical thinking do always feel burnout. This makes workers develop ways to overcome and alleviate the effect of WFH, including relaxation, doing hobbies, and physical exercise as part of work-life balance (Sakitri, 2020). The effect of the COVID-19 pandemic can actually be observed quantitatively with statistical analysis; also, it can be understood from verbal/written expressions on changes in the working situation within the qualitative analysis.

Further study is needed to identify the interaction between COVID-19 and white-collar workers by using the driver-pressure-state-impact-response (DPSIR) model, and this analysis is potentially strengthened by semantic study. DPSIR components do not only explain environmental-related phenomena but have the potential for social-economic studies (Liu et al., 2020; Wijaya & Mutia, 2016). Meanwhile, semantics looks at the meaning as interaction results between language, culture, thoughts, and society (Anshari et al., 2017; Azizmohammadi & Barjesteh, 2020). Therefore, this study aims to analyze the effect of COVID-19 on white-collar workers based on the DPSIR model and semantic aspect. Furthermore, it shows the relationship between the pandemic and people's condition by providing input to optimize workers' performances. The research highlights the gender differences that affect DPSIR components.

2. Theoretical Framework

2.1. The DPSIR Model

The effect of the COVID-19 pandemic on white-collar workers in Indonesia can be revealed by using the DPSIR model from the European Environment Agency (Dede, 2020). The DPSIR model is capable of describing the driving force (causative factor), pressure (catalyst) that accelerates changes in the situation, state, impact, as well as responses as input for decision-making strategies (Liu et al., 2019; Pinuji et al., 2018). Components in DPSIR can be defined as follows, 1) Driver (D) several factors that cause pressures, those

become from natural and socio-economic; 2) Pressure (P) is that exerts the occurrence of changes; 3) State (S) is the consequence of pressures, encourage people to do something that has impacts; 4) Impact (I) with the issue; and 5) Response (R) several efforts to reduce the impact both direct or indirect (Giupponi, 2002; Zain et al., 2018). These components are valuable input for reviewing policies and planning actions that aim to solve problems.

The DPSIR model offers a more comprehensive framework for analyzing the causal relationship of various phenomena, both related to the environment and socio-economics. These problems are placed as variables to know the cause and effect, also their relationship to human activities that bring pressure, changes in initial conditions (state), and behavioral coping to these changes (response) (Hansen & Baun, 2015; Mandić, 2020; Mulyawati et al., 2020). This model has the potential to become the basis for strategic directions, and it overcomes complex interaction problems. According to Romadhon (2014), the DPSIR framework starts with hierarchy and then develops driver to the response. A strategic direction allows the formulation of long-term priorities and institutional changes based on rational considerations in dealing with COVID-19 for work labor. DPSIR, finally, will produce two approaches that are very useful for decision making, such as 'pressure-oriented' or 'state and impacts-oriented' (Song & Frostell, 2012). The DPSIR model has developed more often using qualitative analysis, even though it is very flexible, hence that it can accommodate quantitative, mixed, and RnD analysis to reveal the interactions between these components.

2.2. Semantic Aspect

Semantic analysis can reveal the meanings of symbols or signs, which ultimately result in collectiveness and indefinite generalization (Fanilevna-Mukhamadiarova et al., 2020). Semantics is the study of meanings contained in text or language; it can also be a tool to examine the meaning of the language system over a certain period (Bragina et al., 2020). In semantic analysis, Geeraerts (2017) revealed that not all elements equally represented certain ideas because some words have been shown to have direct semantic connections to keywords, and others have been put into sets based on contextual or conceptual relevance. This

system is dynamic but stable because of the key meanings' generally accepted and used by speakers of the language. Using the principles of semantic analysis, we can examine in depth the relationships such as synonyms, metaphorical, associative between words and meanings, and then understand the various representative characteristics of the words that set of verbal means (Shiryayeva et al., 2020). Semantic analysis recognizes at least five hierarchical language entities, namely words, phrases, sentences, paragraphs, and documents. Wang et al. (2018) stated that higher language entities could be represented by combining the semantic relationships of lower entities.

Semantics is useful to understand the relationship of meaning between language symbols and their subjects. A word has only one original (basic) meaning, but it has been expanded to have several meanings. The relationship between the word, meaning, and real-world will form the referential referred to by its speaker (subject) (Aksan, 2007; Chaer, 2012). In this study, the effect of COVID-19 on white-collar workers can be characterized by their statements about changes in the working situation. Semantics is useful for understanding the meaning of a linguistic entity, including assessing the effect of positive, negative, or neutral connotations arising from the condition that afflicts its subject. These connotations will be relative to time, space, and language origin. Apart from connotation, this disclosure requires an association perspective because some words can have both denotative and connotative meanings (Chaer & Muliastuti, 2020; Naranowicz et al., 2022). This semantic aspect will strengthen and deepen studies on the effect of COVID-19 on white-collar workers, which previously started with statistical judgments.

3. Methodology

3.1. Participants

Figure 1 shows that a total of 109 workers, comprised of 40 men and 69 women aged 40 years with 14 years of work experience, were selected from 22 provinces in Indonesia as participants for this study. The respondents have the criteria meant to fill out the questionnaire (Etikan et al., 2016; Tongco, 2007). This indicated that they needed to (1) be white-collar workers in private institutions or

public/state agencies, (2) have work experience for more than or equal to 5 years, (3) have been working before and during COVID-19, and (4) be WFH experienced. Data were collected online from institutions in the fields of

education (50.3%), health (24.1%), services (10.3%), trade (6.9%), agriculture and fisheries (2.1%), social science (1.4%), engineering (1.4%), manufacturing (1.4%), mining (1.4%), and research (0.7%) using GoogleForm®.

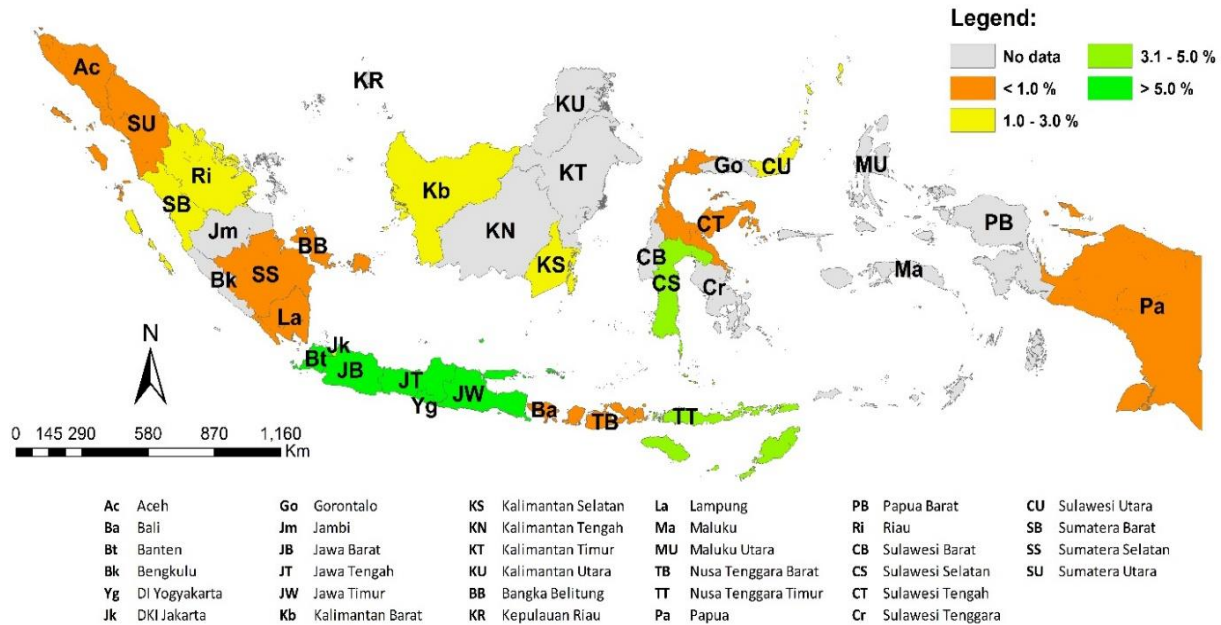


Figure 1

Distribution of Respondents in Each Province.

Most of Them Came from Java, which is the Epicenter of COVID-19 in Indonesia.

3.2. Procedure

3.2.1. Data Collection

The participants needed to answer 31 questions, as shown in Table 1, which were divided into five parts of the DPSIR component, including driver (2), pressure (4), state (8), impact (10), and response (7) (Patrício et al., 2016). The questionnaire comprised of closed questions and statements (scale of 1-10). This difference is adjusted to the characteristics of data and information (Boateng et al., 2018; Morgado et al., 2017; Taherdoost, 2019). In contrast to DPSIR, which uses quantitative analysis, semantics is obtained from open-ended questions about how white-collar workers carry out WFO and WFH. This question is useful to understand how they worked before and during the COVID-19 pandemic, from statements of 20-100 words. The questionnaire and statements from respondents were in Indonesian. Our study used a sequential mixed-methods design, where the quantitative analysis would be

strengthened by the qualitative analysis (Leite et al., 2021). Quantitative analysis is useful for revealing the significance between DPSIR components, while descriptive qualitative analysis serves to know the meaning of language symbols or signs.

All questions were processed with validity and reliability tests to obtain a valid and steady measurement instrument (de Barros-Ahrens et al., 2020). According to Mitra et al. (2009), the validity test uses Pearson's Correlation (Product-Moment). Therefore, the questions are declared valid because the p-value is less than 0.05 (Mitra et al., 2009). The reliability status is discovered using a Cronbach's α test (Ismail et al., 2022). Table 2 shows that each question item becomes valid with a 95% confidence level. The items are reliable, with Cronbach's α of 0.63 and a p-value of less than 0.001. Hence, all questions on the DPSIR questionnaire tend to be used as study instruments.

Table 1*Questionnaire Items for DPSIR Components*

Component	Question
Driver (D)	1) Affected by the pandemic; 2) Have COVID-19 or have the similar symptoms
Pressure (P)	1) Restrictions on physical and social activities (PSBB/PPKM); 2) Office implements WFH; 3) Difficulty to meeting with co-workers; 4) Clarity of working target
State (S)	1) WFH convenience; 2) WFH skills; 3) Ability to operate devices online; 4) WFH facility support; 5) Target (output) goals; 6) Flexibility of working hours; 7) Difficulty coordinating with co-workers; 8) Motivation to finish work
Impact (I)	1) Stress; 2) Burnout; 3) Emotions; 4) Physical fatigue or injury; 5) Pile up work; 6) Rest and sleep disturbances; 7) Decreased productivity; 8) Loss of opportunity cost; 9) family time interrupted; 10) More introverted
Response (R)	How often do these activities during the pandemic: 1) Sports; 2) Gardening and planting; 3) Take care of pets; 4) Cooking; 5) Watching films and listening to music; 6) Worship outside the obligatory; 8) Reading

Table 2*Result of the Questionnaire Validity Test*

Component	r-value	p-value	Status
Driver (D)	0.66 – 0.82	< 0.001	Valid
Pressure (P)	0.39 – 0.76	< 0.001	Valid
State (S)	0.38 – 0.79	< 0.001	Valid
Impact (I)	0.52 – 0.79	< 0.001	Valid
Response (R)	0.43 – 0.65	< 0.001	Valid

3.2.2. Data Analysis

ANOVA and Linear Regression were used to know the interactions between the DPSIR components (Equations 1-2). Previously, the data based on gender criteria were separated into two different groups, including men and women. ANOVA helped in understanding how driver factors (D) trigger pressure (P) among individuals (D-P), while linear regression showed the interactions of pressure-state (P-S), state-impact (I-S), and impact-response (I-R). The results are significant if F-value is higher than F-table or if the p-value is less than 0.05 with a 95% confidence level (Concato & Hartigan, 2016; Faraway, 2002; Widiwaty et al., 2020). Equation 3 shows that a t-Test is used in this study to discover the difference between the two genders by referring to F and T values with a p-value in DPSIR components (Dede et al., 2022; Kim, 2015). Furthermore, Shapiro-Wilk's method (SW) was selected because the data distribution and its residuals were in a normal curve (Widiawaty et al., in press). Table 3 shows that the data is eligible for

further analysis because it is averagely distributed. Therefore, the residual D-P is normally distributed due to its symmetrical box plot that becomes different at 0.007 from SW-Table (0.940; n=40; p-value 0.05).

$$Y = a + bX \quad (1)$$

$$F = \frac{MST}{MSE} \quad (2)$$

$$t = \frac{\bar{x}_1 - \bar{x}_2}{\sqrt{\frac{(s_1)^2}{n_1} + \frac{(s_2)^2}{n_2} - 2r \left(\frac{s_1}{\sqrt{n_1}} \right) \left(\frac{s_2}{\sqrt{n_2}} \right)}} \quad (3)$$

where Y is the dependent variable, a is the constant, b is the regression coefficient, X is the independent variable, F is the variance ratio (F-value), MST is the mean square between groups, MSE is the mean square error within groups (residual mean square), t is the t-statistic (t-value), \bar{x} is the samples mean, s is the standard deviation, $(s)^2$ variants, n is the sample, dan r is the correlation between two samples.

Table 3
Normality Test using Shapiro-Wilk's Method

Components interaction	Men		Women	
	SW-statistics	p-value	SW-statistic	p-value
Driver-Pressure (D-P)	0.933	0.020	0.978	0.251
Pressure-State (P-S)	0.952	0.088	0.887	0.887
State-Impact (S-I)	0.980	0.706	0.966	0.059
Impact-Response (I-R)	0.972	0.430	0.985	0.575

Meanwhile, the semantic aspect was revealed from the analysis of the respondent's statements from their choice of words and syntactic elements (Karman, 2020). In addition, a functional systemic linguistic perspective is also used to answer various language problems at the micro or macro level. Respondents' statements about the working situation before and during the COVID-19 pandemic contained values, both positive and negative, which could be analyzed in terms of semantics. The analysis refers to the rules formulated by Lemke (1998). The semantic aspect can be viewed from several elements such as desirability, warrantability, usuality, normativity, importance, comprehensibility, and humorousness or seriousness. The dimensions of this element can be in the form of a positive or negative meaning as a whole from a statement. There are several procedural steps to look at this semantic aspect, such as 1) Statements from the respondents need to be separated by gender; 2) identifying linguistic features; 3) analyzing the meaning of the text; 4) categorizing meaning, and 5) connecting social processes and its meaning to determine the effect of COVID-19 on white-collar workers.

4. Results

The results showed that COVID-19 significantly affects social and economic activities in non-essential sectors. Therefore, WFH and hybrid systems for white-collar workers become the best choices to tackle SARS-CoV-2 transmission. The results indicated that most of the workers felt the pandemic due to changes in the working system. Figure 2a shows workers are moderately and strongly affected by COVID-19 with a value of 62.50% and 17.50%, respectively. Therefore, health protocols for handling the pandemic need to be obeyed by all institutional managers (Djalante et al., 2020; Muhyiddin & Nugroho, 2021). There tend to be cleaning of the workspace and quarantine for 14 days if workers in the hybrid or WFO are confirmed positive for this virus. The differences in the transition period and adaptation of the working system showed that COVID-19 is not only dynamic in the viral transmission but also in livelihoods (Hadfield, 2022).

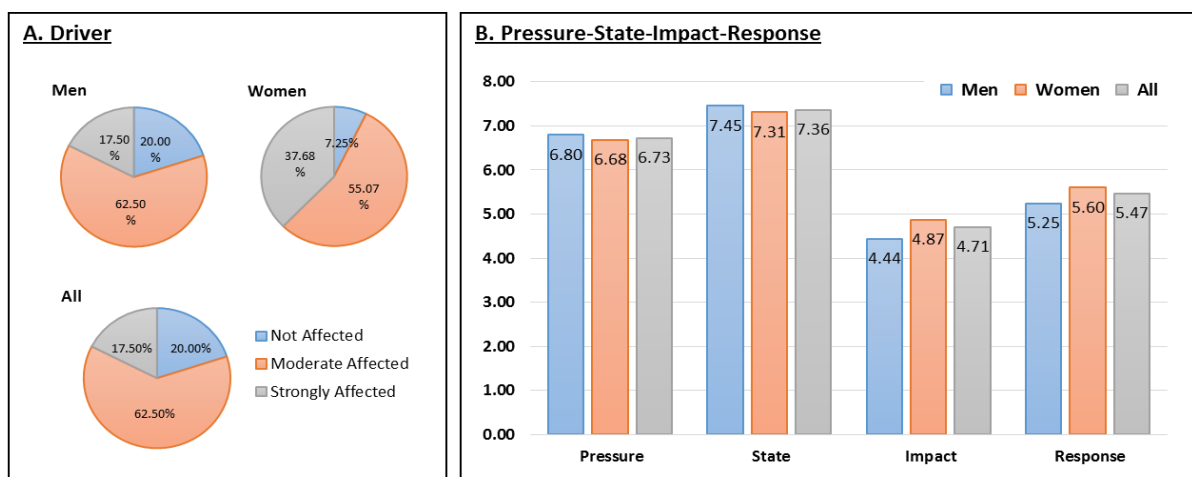


Figure 2
COVID-19 as the Driver Component (Left), and Pressure-State-Impact-Response for White-Collar Workers at Scale 1-10 (Right)

Figure 2a above shows that COVID-19 becomes the driver (D), which creates pressure (P) for white-collar workers. The D component indicates this pandemic puts higher pressure on men that has 6.80/10 with a p-value more than 0.05 (95% confidence level). Furthermore, the statistical tests showed that the D-P interaction in men and women had the F-statistic of 0.213 and 0.134 (0.875), respectively. The ANOVA test does not mean that D is unable to interact seriously with P despite being shown

insignificant results. This situation becomes a serious signal because the pandemic shows 6.73/10 pressure on white-collar workers. Workers and their institutions tend to be inseparable units from the socio-economic system. This is because the government rules PSBB/PPKM (Indonesian terms for the lockdown policy), and difficulty accessing resources in the office disrupt the working rhythm (Chinnaiah & Chytra, 2021).

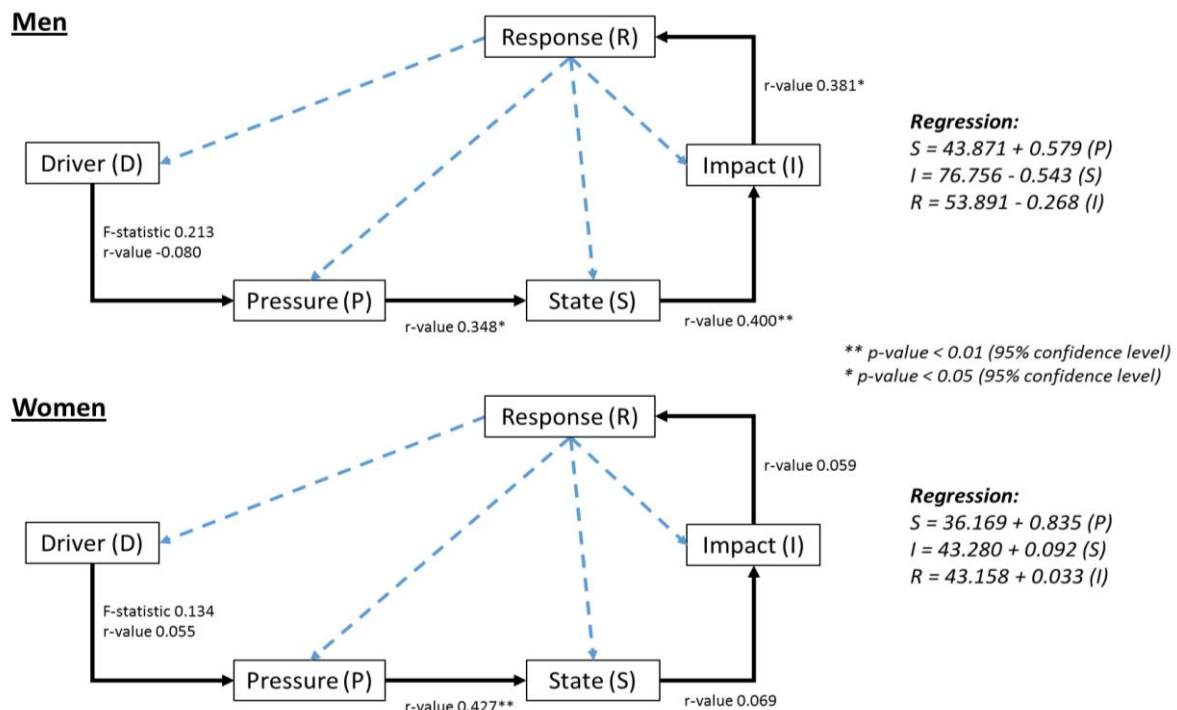


Figure 3
Interaction between DPSIR Components on Men (Top) and Women (Bottom) During COVID-19

Figure 2b shows that men have higher scores in P and S, while women have higher scores in I and R. The pandemic moderately affects workers because D has a higher emphasis on men. In Indonesia, several institutions formed a small team to handle COVID-19 (task force). However, women consider this pandemic to have a moderate impact because they are more strongly affected than men. According to

Nurbayani et al. (2019a) and Del-Boca et al. (2020), WFH with flexible working hours requires proper adaptation in terms of culture and stereotypes (social construction). This study result is linear with R because women workers have a higher value on I. Therefore, R is directly or indirectly related to the D-P-S-I components.

Table 4
T-Test on DPSIR Components of Men and Women Workers

Component	F-statistic	T-statistic	p-value
Driver (D)	3.360	-2.725	0.008
Pressure (P)	0.089	0.437	0.663
State (S)	0.443	0.507	0.566
Impact (I)	0.676	0.413	0.105
Response (R)	2.051	0.155	0.082

The P component significantly affects S, with men and women having a p-value of 0.028 and < 0.01 , respectively. This shows the pandemic has created a different S for white-collar workers regardless of their gender. Figure 3 indicates that S-I and I-R in each gender are different. The linear regression analysis showed that the two interactions in men significantly occurred due to the p-value < 0.05 with R-values of 0.40 and 0.38, respectively. This is different for women who have a low R-value

and T-value. Table 4 shows the difference in each component based on gender. This indicates that the interactions between DPSIR in men workers are significantly related to each other. The workload during this pandemic is justified due to men having 50.52% of the result of the SARS-CoV-2 PCR test in Indonesia (Aisyah et al., 2020). Therefore, the government needs to pay more attention to technical, social, and economic aspects to prevent work fatigue that has a detrimental effect on the institution.

Table 5
Semantic Elements from White-Collar Workers Statement

Semantic element	Men	Women
Desirability	'tidak bisa' (cannot); 'sulit untuk' (hard to); 'tidak mendukung' (not support)	'jadi tidak mudah' (it is not easy)
Warantability	'hanya terbatas untuk' (only to); 'lebih banyak tantangannya' (more challenges); 'sering tidak fokus' (frequently not focus)	'waktu bekerja tidak jelas' (working time is not clear); 'sulit fokus' (hard to focus)
Usuality	'setiap hari' (every day); selalu terawasi (always monitored); seringkali (frequently)	'adakalanya bekerja sembari' (sometimes working while)
Normativity	'target kurang tercapai' (target not achieved); 'tidak kondusif' (not conducive)	'terbatas ruang gerak' (limited movement space); 'perlu efisiensi' (need efficiency); 'target kerja kurang terarah' (work targets are less focused)
Importance	'sangat membosankan' (very boring); 'sangat sembarangan' (very reckless)	'lebih membosankan' (more boring)
Comprehensibility	'kehilangan semangat' (loss motivation)	'beban kerja bertambah' (increasing workload)
Humorousness or seriousness	'sangat berbeda' (very different more flexible work); 'kegiatan terhambat' (activities are hampered); 'kerja lebih fleksibel' (more flexible work)	'sedikit perbedaan' (quite different); 'kerja sangat fleksibel' (more flexible work)

From the semantic aspect, the effect of COVID-19 was felt by men more than women. Forty-three percent of men have made statements related to the effect of COVID-19. This figure was almost double that of women, which was only 22%. This is also in line with several signs in each semantic element as shown in Table 5. From the elements of desirability, warrantability, and humorousness or seriousness, we have seen that men workers are more expressive in expressing the effect by choosing more diverse words. Statements containing the words 'tidak bisa' (cannot), 'sulit untuk' (hard to), and 'tidak mendukung' (not supported) show negative desirability to work ideally, which they cannot afford. This is reinforced by the words kata 'hanya terbatas untuk' (only limited to), 'WFH

lebih banyak tantangan' (WFH bring more challenges), and 'sering tidak fokus' (frequently not focus), it is not ideal, but they have to live up to the work targets to continue to be achieved. Many institutions that implement WFH must re-evaluate work targets and performance for workers (Juhász et al., 2020). White-collar workers must be familiar with this situation as expressed by the words 'setiap hari' (everyday) or 'setiap saat' (at times) for men workers, especially if they also have to be adaptive to creating the working report when required by supervisors. The three semantic elements are revealed in the following sentences:

<Selama WFH> hanya terbatas untuk kegiatan di luar, jam kerja yang tidak menentu, pendapatan <saya> sedikit berkurang dan beban biaya <penunjang> yang <semakin> bertambah.

<during WFH> is limited to outside activities, the working hours are uncertain, My income is slightly reduced, and <support> cost burden is <too> increasing.

Saat WFH berbagai pertemuan virtual seringkali dilaksanakan pada waktu bersamaan. Tidak sulit <bagi saya> untuk menghadiri dua pertemuan bahkan lebih....tetapi <yang menjadi> permasalahan adalah intensitas dan kualitas <pada> pertemuan tersebut.

During WFH ... many virtual meetings are often held at the same time. It's not difficult <for me> to attend two or more meetings However, <the> problem is the intensity and quality <at> the each meeting.

<Saya> harus beradaptasi dengan pemenuhan tugas menggunakan aplikasi <untuk WFH> <muncul> rasa jenuh <akibat> online meeting karena sering <mengalami> pusing dan sakit mata.

<I> had to adapt to fulfilling tasks using much software <for WFH> <appear> a boring sense <due to> online meetings because of frequent <feeling> dizziness and eye pain.

Another effect of COVID-19 is reflected in the normativity element; men workers need a conducive atmosphere to achieve the work targets. Efficiency and redirecting work targets can be a solution. Bored due to losing enthusiasm or piling up workloads is clearly illustrated by the comprehensibility element. The statement of bored as an adjective during WFH begins with an adverb in the form of bentuk 'sangat' (very) and 'lebih' (too), which indicates a level (Yagcioglu, 2018). Not infrequently, the boundaries between work and rest time are biased because they have to finish work until the evening from home. For both men and women, COVID-19 has brought diversity and flexibility to work even though there are different levels of adverb. This element of seriousness is revealed in the statement of men workers through the words

'sangat berbeda' (very different) dan 'lebih fleksibel' (more flexible), whereas women used 'sedikit berbeda' (quite different) and 'sangat fleksibel' (very flexible). We can know the effect of COVID-19 from the semantic aspect, especially at normativity, importance, comprehensibility, and seriousness of the following statement.

<selama WFH> mengajar <dilakukan secara >daring, banyak rapat virtual, jam kerja tidak jelas, <dan> merasa stres.

<during WFH> teaching <online>, many virtual meetings, unclear working hours, <and> feeling stressed.

<WFH membuat> waktu <kerja> sangat sembarangan, <bahkan> bisa rapat sampai malam, sehingga sangat fleksibel.

<WFH triggers> <work> time very reckless, <even> can hold meetings until the evening, so it is very flexible.

<bekerja> lebih fleksibel, <tetapi> waktu kerja bisa lebih panjang dan lebih banyak pekerjaan secara online.

<work> is more flexible, <but> working hours can be longer and more online working.

Tidak efektif dan <terasa> sangat membosankan <siswa dan guru> kehilangan semangat belajar.

Ineffective and <feels> very boring <students and teachers> lose their enthusiasm for learning.

5. Discussion

The results showed that men have higher scores in the state (S) and pressure (P) because their work obligations during COVID-19 come from additional tasks at the office and home. This shows that excessive workload, lack of WFH's facilities, pickets to the office, and support system for others are mostly roled by men. Men workers do work regardless of time and circumstances but still pursue achievements and try to take care of their household. In Indonesia, men are required to put more effort into performing their role in the family due to the pandemic that creates uncertainties (Nurbayani et al., 2019b; Sulistiowati & Komari, 2021). Therefore, men need to monitor

children's online learning because COVID-19 has forced several families to layoffs their home assistants. Workers' physical, social, and mental conditions – well-being is negatively affected due to excessive working hours (Jaiswal & Arun, 2020; Tanjung et al., 2021). According to Mustajab et al. (2020) and Toniolo-Barrios & Pitt (2021), workers are forced to add new devices to perform multitasking online and work for longer hours. Work culture plays an important role because it triggers a new task that needs to be carried out at another time. However, the meeting activities are very much interesting but later get ignored due to the quality during WFH. This triggers white-collar workers who want a harmonious lifestyle due to hybrid working that becomes an option (Amri et al., 2021; Irawanto et al., 2021).

The S-I interaction shows that the state (S) significantly affects the impact (I) with a negative coefficient value because men feel the influence of COVID-19 on their work quality and life. This situation triggers stress and burnout because workers' productivity is disrupted (Hayes et al., 2021). Workers who carry out hybrid and WFH are always faced with surrounding problems. Therefore, more efforts are needed from institutions to fulfill the health and productivity aspects of new normal activities. The working environment is realized and needs to be adaptive to PSBB/PSBB policies (Sari & Budiyantri, 2020). Men workers failed to respond (R) to the emergence of impact (I) because the interaction of I-R with the negative coefficient shows a decrease in the coping and adaptation strategies while I continue to increase. This indicated that systematic efforts are needed to reduce I by a managerial approach that is accompanied by communication and technical supports during COVID-19 (Ferreira et al., 2021). Institutions need to pay attention to the following, including (1) home-office constraints, (2) work uncertainties, and (3) inadequate tools (Ipsen et al., 2020). Also, the unsupportive state (S) for workers has to be realized as a trigger for impact (I) in DPSIR components. This makes WFH and hybrid models become the choice of working systems after the occurrence of the pandemic. In addition, the major responsibility of institutions includes ensuring that workers are safe, comfortable, productive, and live a favorable life (Boland et al., 2020).

In contrast to men, working from home can actually be more valuable for women because WFH often allows them to do other activities that are more diverse – usually household activities (Szameitat et al., 2015). The semantic aspect strengthens the results of statistical analysis, which shows that there is a difference between the two genders; men workers get a significant effect than women workers. Men expressed more complaints, as well as higher adverb levels (emphasis) on verbs, adjectives, or nouns on the importance and seriousness. Expressions that convey and imply the effect of COVID-19 on them are in various expressions for selecting lexicon and grammatical constructions. Choice of words on the desirability shows that they do not want this pandemic situation to continue firmly. In men respondents, there are words that imply positive '.... <yang menjadi> permasalahan' (.... <which is> the problem) and '.... tetapi yang tidak bisa ditolak' (.... but that can't be denied) from their statements. Even not clear, these words have the equivalent of 'it is pity', 'shame!', or "how sad!" in English (Castro, 2014). The words and sentences should become a code that should make white-collar workers understand each other better, including the institution leaders. The declining performance of white workers during WFH has the potential to continue when they are placed in the working from anywhere (WFA) system.

The work culture in Indonesia has actually not been ideal since before this pandemic occurred. White-collar workers are often required to obey their supervisors or seniors because the career paths and promotions are highly dependent on those who occupy higher hierarchies in the institution (Syechebubakr, 2019). Prior to COVID-19, few white-collar workers were reluctant to go home according to schedule because their seniors were still in the office. The sentences '*asal bapak atau ibu pimpinan senang*' (making Mr. or Mrs. boss cheerful) and '*yang penting atasan senang*' (delighting the seniors) are commonly heard among white-collar workers. On the other hand, men workers often receive assignments from their peers or seniors for something outside the job description. Many white-collar workers interpret the word '*nurut*' (obedient) as an adjective in the form of total devotion to superiors, even though this word should be addressed professionally to institutions, not to individuals. This work

culture is bossy; workers in lower hierarchies have to bear some of the tasks from the higher positions. This situation creates a comfort zone; they are not able to improve their skills to be more functional because there are many challenges to evaluate performance due to conflicts of interest between the institution and seniors.

The culture is not ideal; the modern work system demands specialization and meritocracy. Implementation of the word 'obedient' is driven by the fact that workers have '*tidak enakan*' (reluctant or hesitate) character, which means people's pleasure. According to Gupta and Sukanto (2020), this sign is a communication style for 'respecting their elders and persevering in the accomplishment of tasks'. Men workers often get more burdens. Feudal and patriarchal cultures tend to view the division of labor based on gender despite their awareness to care for women colleagues. The COVID-19 pandemic has opened the veil, also adds pressure on white-collar workers who have previously been exploited. When white-collar workers are diagnosed with COVID-19 and are not hospitalized, they must be productive at work during the period of healing and self-isolation. This situation would trigger the hustle culture as a deviant subculture (Balkeran, 2020). Many complaints will not be exposed by seniors because white-collar workers are unwilling to raise that. Different from blue-collar workers in Indonesia who belong to union organizations and often voice their aspirations, associations for white-collar workers are not outspoken and only serve as a gathering place (Yusman et al., 2021); thus, it is difficult to change this culture among them.

In Indonesia, COVID-19 affects white-collar workers because there is a significant difference while responding to the pandemic as a driver factor (D) between men and women in pressure-state (P-S), state-impact (S-I), and impact-response (I-R). Meanwhile, the insignificant driver-pressure (D-P) interaction indicates that COVID-19 does not directly affect workers but changes the work system from WFO into WFH or hybrid, which creates P and S. These changes create pressures for men workers because they are faced with uncertainties and roles division in their family. Therefore, I failed to promote R through proper adaptation and coping strategies. This

phenomenon is not optimal for worker productivity because it creates social, economic, and health losses. The institutions suggested that work efficiency and a harmonious lifestyle become the main goal of preventing the pandemic by providing policies, work facilities, and incentives. From the semantic aspect, white-collar workers express the effect of the COVID-19 pandemic with adjectives and adverbs. WFH does provide flexibility, but it demands very high adaptability for workers. Phrases that mean boring, pressure, difficulty, and multitasking appear among white-collar workers, especially men. However, from the DPSIR model and semantic aspect analysis, deeper disclosure of barriers and adaptation during COVID-19 become the potential for future studies.

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