

# Study of Behavioural Adaptation Against Changes to the Layout of the Office Workspace at Covid-19 Pandemic Period

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## ABSTRACT

The Covid-19 pandemic has caused many changes to human lifestyles, one of which is changing the way we work and the way we define the 'workplace' which is known as the office. As a result of this phenomenon, there is an adaptation of user behaviour (office employees) to changes in the layout of the workspaces in their offices. This research provides an overview of the adaptation to changes in the layout of the workspace and changes in employee behaviour in their workplace during the Covid-19 pandemic. The adaptation applied is the Adaptation to New Habits (ANH) as a realization of the implementation of health protocols that have been set by the government. In this study, employees' perceptions will be measured based on physiological factors in the form of sources of information they get to implement the adaptation to new habits and how this encourages them to implement health protocols during the Covid-19 pandemic. The research method used is a qualitative description which is then quantified to determine the tendency of office employees to adapt to changes in the layout of office workspace. In addition, it also seeks to understand, examine and interpret the meaning of an adaptation event and changes in human behaviour toward changes in workspace layout in the Covid-19 pandemic situation from the perspective of the researchers themselves. The results of this study reveal that in the adaptation process there are changes due to essential needs related to health protocol procedures in the office and space requirements that are adapted to their functions.

**Keywords:** *adaptation to new habits, layout change, office workspace, covid-19*

## INTRODUCTION

During the Covid-19 pandemic and predicted in the future it will change our culture and way of working so that office functions and activities tend to change. The Covid-19 pandemic reflects again on the importance of offices to their agencies and how existing offices adapt to new needs that emerged during the Covid-19 pandemic. Changes in the layout of the workspace and the way of working will also indirectly change the behaviour of humans who experience these conditions. Referring to this, there will be behavioural adaptation and adjustment to environmental conditions in which it is located. Adaptation is a way of changing our behaviour to suit the demands of the environment, while adjustment is the way we change or modify the environment to suit our behaviour [1].

The New Normal policy encourages the government to be able to implement policies where normal activities can continue as before while still implementing health protocols to

suppress the spread and transmission of the Covid-19 virus. This policy is known as Adaptation to New Habits (ANH). The Adaptation to New Habits is a term that refers to behaviour change as an effort to adapt various community activities by implementing health protocols in it as a form of new habit to avoid the Covid-19 virus [2].

Social learning to implement health protocols in the community in adapting new habits is related to public perception (office employees) based on physiological factors, where educational stimuli received by individuals through information media sources are used to access something desired. In general, in psychology, perception is present based on information obtained by humans with their five senses [2] through so many media.

In this study, the perception of employees based on the physiological factors to be measured is the source of information they get to implement the Adaptation to New Habits and how this encourages them to implement health protocols during the Covid-19 pandemic. It is hoped that this

study aims to see how employees make behavioral changes in Adaptation of New Habits in terms of social learning based on physiological factors.

## LITERATURE REVIEW

Adaptation is a way of changing our behaviour to suit the demands of the environment, while adjustment is the way we change or modify the environment to suit our behaviour, as expressed by [1]. According to Bell and Fisher explaining the adaptive behaviour can be said to be successful or satisfying, depending on the perception each perpetrator. Perception occurs when a number of sensations are combined through a mediating process in the structure of the brain's nervous system so that we recognize or regulate patterns from a number of sensations that have accumulated in long-term memory [3]. Further explanations include: Adaption is a person's effort in response to the adjustment of physical conditions in the environment by changing behaviour. While the adjustment is a person's efforts to meet needs in the form of actions in the form of making changes or additions (reorganizing) to the environment. The definition of office workspace layout, according to Quible in his book *The Liang Gie* states that office layout explains how to use space effectively and is able to give satisfaction to employees with the work done, as well as give a deep impression to employees.

Sedarmayanti and Eko in their research revealed that "Office layout is the arrangement and arrangement of all office machines, office equipment, and office furniture in the right places, so that employees can work well, comfortably, freely and freely move, so that work efficiency is achieved." [4]. She also said that the function of office layout is not only placing equipment and equipment in an office, but office layouts must be used to organize and facilitate the movement of employee workflows from one room to another [4]

Based on the statement above, it can be concluded that office layout is an effort to regulate the needs of office equipment, office equipment, and the arrangement of furniture that is tailored to the needs of office work aimed at realizing work efficiency. Therefore, in carrying out work in the office, one of the important factors that determine its smoothness is the preparation of the workplace and office equipment as well as possible.

## METHODS

This research uses a qualitative description research method which is then quantified to determine the tendency of office employees to adjust to changes in the layout of the office workspace. This study seeks to understand, examine and interpret the meaning of an event of adaptation and change in human behaviour towards the workplace (office) in the Covid-19 pandemic situation according to the researcher's own perspective. The purpose of this study is to describe the optimal spaces to accommodate all activities in the office during a pandemic by understanding changes in human behaviour towards their offices that are adapted to health protocols. Observational analysis is in the form of adaptation or adjustment of office employees to changes in the layout of the office workspace based on physiological factors regarding the Adaptation to New Habits (ANH) or New Normal.

The data sample is devoted to government or private employees in the cities of Tomohon and Tondano who carry out their main activities, namely working in government and private office workspaces and implementing health protocols as new rules in carrying out activities during this pandemic. There are 125 office employees who are also voluntary respondents. These respondents also act as observers of changes that occur in their workspace.

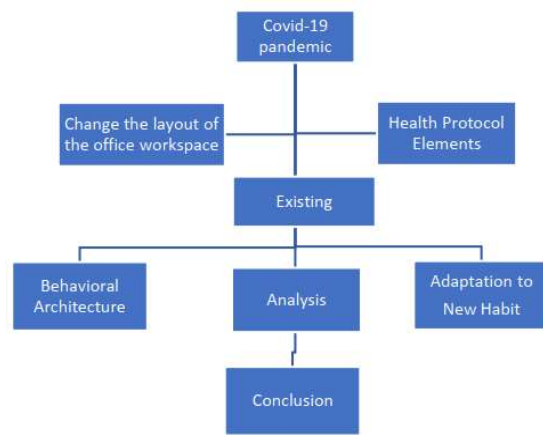


Figure 1. Research Flowchart  
(Source : author's analysis)

## RESULTS AND DISCUSSION

1. Layout of Office Workspace During the Covid-19 Pandemic.

In general, the layout of several offices in Tomohon City and Minahasa Regency has been carried out following the directions and rules according to the health protocol provisions. Laying of work space facilities such as; sofas, guest tables, cupboards, stationery cabinets, and other equipment are arranged in such a way as to comply with the implementation of applicable health protocols so that employees can feel safe from the transmission and spread of the Covid-19 virus. In addition, the placement of chairs and work desks has also been arranged in such a way with a distance of approximately one meter for each work table and chair with the aim of employees always keeping their distance. The air condition is improved so that the air in the room is not trapped and the circulation is smooth so that the air is always sterile and clean. Adding health protocol facilities to break the chain of spread and transmission of the Covid-19 virus, such as adding hand washing facilities and others.

## 2. Problems in the Layout of the Office Workspace.

In general, the layout of the office workspace has a very important role, especially during the Covid-19 pandemic, where every office must implement health protocols to achieve a better job. In addition to having many benefits, the activities of rearranging the layout of the office workspace in accordance with health protocols, but office managers also encounter several problems as follows:

1) Narrow space, a problem faced in changing the layout of the workspace when faced with the problem of small and narrow space. The alternative offered is to change the function of the room or exchange it with a more suitable area of space.

2) Poorly maintained health protocol facilities and equipment, such as sterilization booths whose procurement costs are not cheap. The lack of adaptation from employees, guests and visiting people, has made the disinfection sterilization booth neglected and also not properly cared for so that its condition is mostly placed in the office warehouse.

3) Although the climate conditions in the cities of Tomohon and Tondano are generally cool, but because they are in the humid tropics, the air conditions depend on changes in the natural climate. 4) Lighting is a very important element in office work, but is often ignored by office managers, what's the point of creating a healthy

and comfortable room if lighting is felt to be lacking.

## 3. Solutions to Overcome Problems in the Layout of Office Workspaces.

1) Rearrangement of the layout of the office workspace, such as the arrangement of table furniture and work chairs by paying attention to several things; a. Restoration of furniture, if the work space is not spacious enough and is classified as narrow, should avoid the use of large furniture, such as work cabinets and cabinets for employees' personal files and tools can be eliminated because employees prefer to bring their personal papers and personal data home. b. Utilize every corner as much as possible, for example using the empty space under the stairs for the placement of files and tools that are not and very rarely used, such as making special cabinets.

2) Taking care of facilities supporting health protocols and adapting new habits, must be treated by conducting periodic checks, especially facilities that support health protocols to prevent the transmission and spread of the Covid-19 virus. There must be awareness of all parties involved.

3) Improving the air system that is still not healthy is something that must be considered in the employee's workspace. Ventilation and windows must be opened so that air circulation in the room is smooth and not trapped, this can later improve the quality of employee health which will have an impact on improving employee performance.

4) Lighting is the most important element in doing any office work, but is often overlooked by office managers. It is better if the number of lamps for lighting is added to the rooms that need artificial lighting and the window curtains are opened so that the incoming light is better, this will improve the performance of the employees which will have a good impact on the agency.

## 4. Adaptation to New Habits to Changes in Workspace Layout.

Adaptation to changes in the layout of the office workspace is seen in employee compliance in implementing health protocols, this can be reviewed through social learning theory. Social learning theory or social learning which states that in general behaviour change or behavioural

adaptation is learned through observing the behaviour of the model (people who are imitated) [5]. Social learning can help in adopting new behaviours as well as reinforcing existing behaviours. Social learning encourages people to imitate when something is uncertain, imitate the majority, and imitate when it is better [6].

#### 4.1 Behaviour Change Through Social Learning Theory.

The essence of social learning is that individuals carry out the process of adding and searching for observed behaviour and then generalizing from one observation to another. In the process of imitation, individuals do not only imitate but adapt themselves to the actions of others, by representing information and storing it for use. In addition, in modelling, the characteristics of the model become very important to be imitated. Individuals prefer models of higher status and competence. So that the consequences of the modelled behaviour can have an effect on the observer. In addition, individuals act based on awareness of what can be imitated and not by anticipating certain results from modelling that have the potential to provide benefits [7].

#### 4.2 Behavioral Changes Based on Physiological Factors.

The dimension of this physiological factor relates to the educational stimulus received by the community (employees) through information sources that are used to access something desired as an effort in the learning process. This dimension describes the source of information that is the most widely used and most frequently used, in this context to access information regarding the Adaptation to New Habits in the midst of the Covid-19 pandemic as a form of community effort to imitate or not imitate behaviour in the implementation of Adaptation to New Habits. The following is an explanation of the descriptive analysis of each indicator to describe the dimensions of physiological factors that influence employee perceptions of being able to carry out Adaptation to New Habits to changes in the layout of the workspace in their respective offices.

##### 1. The level of employee insight about Adaptation to New Habits.

In describing physiological factors, first of all analysis the level of employee insight or knowledge about Adaptation to New Habits that

has been stimulated by information. To analysis the level of understanding of employees about Adaptation to New Habits during the Covid-19 pandemic, an indicator is used in the form of questions, do they know/understand about Adaptation to New Habits? The following results can be seen in the table below participated in filling out the questionnaire. The following results can be seen in the table 1.

Based on the table above, it shows that, in general, office employees already know about Adaptation to New Habits towards rearranging the layout of the office workspace. A total of 122 or a percentage value of 97.6% of the total number of employees who answered "Yes" from 125 respondents who answered the question. Meanwhile, 4 other respondents with a percentage of 2.4% claimed not to know about the Adaptation to New Habits to the layout of the office workspace.

Table 1. The level of insight of office employees knowing about Adaptation to New Habits

	Frequency	Percent	Valid Percent	Cumulative Percent
Legitimate Yes	122	97,6	97,6	97,6
Legitimate No	3	2,4	2,4	100,0
Total	125	100,0	100,0	

Source: Results of data processing, 2022

##### 2. Sources of information obtained about Adaptation to New Habits.

This indicator analysis how employees obtain sources of information related to their knowledge of Adaptation to New Habits. The sources of information media in this study are divided into print media, electronic media, social media, through information directly from the government, and so on. Respondents are allowed to choose more than one of the most frequently used sources of information media, so that supports the number of data frequencies in this indicator is not equal to or exceeds the number total respondents who participated in filling out the questionnaire. Here are the results seen in the table below:

Table 2. Media sources of information most often used by employees

Types of media that are often used	Frequency (f)	Percentage (%)
The printed media	20	16.0
Electronic media	106	84.8
Social media	104	83.2
Information directly from the government	16	12.8
The other	3	2.4

Source: Results of data processing, 2022

The results of the table above show that 84.8% of office employees generally answered electronic media as the source of the most media and the most frequently accessing information about Adaptation to New Habits. The sources of electronic media used by employees are news on television, official websites belonging to both national and international health agencies, as well as published scientific articles/journals. In addition, 83.2% of employees choose social media whose sources of information include WhatsApp, Instagram, Line, Twitter, and Facebook groups. Meanwhile, 2.4% of employees claimed that they received information on Adaptation to New Habits through other media such as from their work environment and place of residence. On the other hand, for respondents who do not know about Adaptation to New Habits, they are of the opinion that they have never heard or read about this information in any form of media.

**3. Employees' perception that Covid-19 exists and is dangerous.**

After the respondent has insight into information and knowledge and where the source of the information was obtained, the next indicator leads to the perception of employees about their belief that Covid-19 exists and is dangerous. To analysis these indicators, this study uses indicators in the form of the statement "I believe the Covid-19 virus exists and dangerous". In the data processing process, this indicator was cross-tested with the first indicator, namely the level of employee knowledge about Adaptation to New Habits. It aims to determine whether these two indicators are related.

The results of the cross-test tabulation of this indicator are shown in table 3. For office employees who already know Adaptation to New Habits, 4 respondents or (3.3%) have the perception that although they know IMR, they do not agree with the statement that Covid-19 exists and is dangerous. Furthermore, 10 respondents or

(8.2%) claimed to disagree; 29 respondents or (23.8%) claimed to agree; and 79 respondents or (64.7%) claim to strongly agree with the statement that Covid-19 exists and is dangerous. Meanwhile, the answers from employees who did not know about the Adaptation to New Habits were only one respondent or (0.7%) who claimed to disagree, agree and strongly agree with the statement. Based on the results of table 3, it can be concluded that, there is no significant relationship between the level of employee knowledge about Adaptation to New Habits and individual perceptions about the dangers of Covid-19, so that employees have different levels of trust in the dangers of Covid- 19 regardless of whether they know or not about the dangers of Covid-19. Adaptation to New Habits to changes in the layout of the office workspace.

*Table 3. The cross-test tabulation the level of employee knowledge about Adaptation to New Habits and the employee's perception of the belief that Covid-19 exists and is dangerous*

		Believe the Covid-19 virus exists and dangerous				Total	
		Disagree	Less Agree	Agree	Strongly agree		
Do you know about Adaptation to New Habits	Yes	Amo unt	4	10	29	79	122
		%	3.3%	8.2%	23.8%	64.7%	100.0%
	No	Amo unt	0	1	1	1	3
		%	0%	33.3%	33.3%	33.3%	100.0%
Total		Amo unt	4	11	30	80	125
		%	3.2%	8.8%	24.0%	64.0%	100.0%

Source: Results of data processing, 2022

**4. How employees apply Adaptation to New Habits to changes in workspace layout.**

After analyzing the 3 indicators that existed before, the final form is to assess the employees' perceptions of the implementation of the Adaptation to New Habits based on physiological factors. Have they implemented the Adaptation to New Habits in order to adjust to changes in the layout of the workspace in their respective offices which is the realization of the implementation of health protocols in order to prevent the transmission and spread of the Covid-19 virus. The following results can be seen in table 4 below:

*Table 4. Employees have implemented the Adaptation*



*to New Habits for changes in the layout of the workspace*

	Frequency	Percent	Valid Percent	Cumulative Percent
Legitimate Yes	122	97,6	97,6	97,6
Legitimate No	3	2,4	2,4	100,0
Total	125	100.0	100,0	

Source: Results of data processing, 2022

The results of table 4 show that 122 or as many as 97.6% of employees have implemented the Adaptation to New Habits as an adjustment to changes in the layout of the workspace in their offices. The application of the New Habit Adaptation to changes in the layout of the office workspace, as the best effort in the context of adjustments to prevent the transmission and spread of the Covid-19 virus both for oneself and for others.

Table 6 through the cross-test tabulation shows the results of respondents who did not implement the Adaptation to New Habits. There are 3 respondents who do not or have not implemented the Adaptation to New Habits, one of them does not or has not implemented the Adaptation to New Habits because they do not know the demands for the obligation to implement the health protocol. Meanwhile, the other 2 respondents, with a percentage value of 1.7% did not implement the adaptation of new habits to support the health protocol program, to changes in the layout of the office workspace even though they knew about it.

Based on the four indicators above, in general it can be concluded that based on physiological factors, although office employees already have insight or know about adjustments in the form of adaptation to new habits through various media sources, their perceptions will not automatically lead employees to voluntarily will apply the adaptation to new habits adjustment with discipline. This also shows that individual differences in perception determine what actions will be taken, especially to deal with the Covid-19 pandemic.

*Table 5. The cross-test tabulation of the level of insight of office employees and the implementation of Adaptation to New Habits*

	Yes	Amount	Have you applied Adaptation to New Habits to changes in office workspace layout		Total
			Yes	No	
Do you know about Adaptation to New Habits	Yes	Amount %	120	2	122
			98.3%	1.7%	100.0%
	No	Amount %	2	1	3
			66.7%	33.3%	100.0%
		Amount %	122	3	125
			97.6%	2.4%	100.0%

Source: Results of data processing, 2022

**5. The motivation of office employees to implement the Adaptation to New Habits during the Covid-19 pandemic as a realization of the implementation of health protocols.**

Motivation plays a role as a driver of one's wishes and desires, in this context the willingness and desire of office employees to carry out health protocols in the form of implementing adaptation to new habits during the Covid-19 pandemic. Therefore, to explain the motivation indicators, the results are illustrated in table 6 below:

*Table 6. Motivation of office employees to apply Adaptation to New Habits*

Employee motivation to apply Adaptation to New Habits to changes in office workspace layout	Frequency (f)	Percentage (%)
Trying to protect yourself from the risk of transmission and spread of the Covid 19 virus	122	97.6
Have awareness that Covid-19 can be contagious and dangerous	82	65.5
To quickly get together with family / friends	47	37.6
So that office activities return to normal	56	44.8
So that the Covid-19 pandemic ends quickly	80	64.0
The other motivation	2	1.6

Source: Results of data processing, 2022

Based on the results from table 6, it can be concluded that the majority of office employees (97.6%) in general tend to be motivated to implement the Adaptation to New Habits, because they try to protect themselves from the risk of transmission of Covid-19 which is dangerous. Followed by the motivation for the awareness can be contagious and dangerous Covid-19 virus

(65.5%). Motivation for Covid-19 to ends quickly (64.0%) is in the next position. On the economic side, they are motivated to implement the adaptation to new habits, by returning to normal office activities so that the family's economy improves and recovers as before (37.6%). On the health side, so that this pandemic ends quickly and there are no more victims who die. As for other motivations, there are employees who are sincere in implementing the adaptation to new habits because their family members are paranoid about the Covid-19 virus and there are also those who have become self-disciplined encouragement from the family environment. Whatever the motivation, judging by the employees' responses, it is undeniable that now they are indicated to be accustomed to doing things that support health protocols (wearing masks in public places, using a face shield when driving, gloves if necessary, carrying a hand sanitizer, and so on) on the implementation of Adaptation to New Habits during the Covid-19 pandemic.

## CONCLUSION

The rearrangement of the layout of office workspaces in several government and private offices in the cities of Tomohon and Tondano was deliberately carried out in the context of implementing health protocols to prevent the transmission and spread of the Covid-19 virus. In general, the rearrangement of the layout of the office workspace is focused on things that support health protocol activities. Arrangement of office facilities such as arrangement of work tables and chairs within one meter (physical distancing), improving air circulation in several parts, and procuring other health protocol supporting facilities such as adding hand washing facilities, sterilization booths, and hand sanitizers.

Although there are several obstacles such as air circulation problems and poor lighting, they can be overcome by improvements based on evaluation. In addition, there are facilities supporting health protocols that are not properly maintained, and periodic checks are not carried out such as not being cared for by disinfecting sterilization booths, this is due to a lack of adaptation from employees and guests as well as the people who use the office's services.

Changes in the behaviour of office employees are driven by their process of implementing social

learning, through a process of observation, imitation to reinforcement to be able to imitate in the application of Adaptation to New Habits. From the results of the research conducted, it can be seen that there is a change in the behaviour of office employees from a decrease in the level of discipline of health protocols to being motivated to implement health protocols after studying information about the implementation of Adaptation to New Habits. Most of the employees in the cities of Tomohon and Tondano have implemented Adaptation to New Habits adjustments during the Covid-19 pandemic. Health protocol activities must be adhered to by office employees through adapting new habits to various changing conditions that can occur, such as changing the layout of the workspace in their respective offices.

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