Journal of Economic Integration | **Vol: 10 - N°: 01 / (March 2022)** | **pp: 31-46**

Testing a multivariate model of absenteeism a during corona virus pandemic
اختبار نموذج متعدد المتغيرات للتغيب عن العمل خلال جائحة فيروس كورونا

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Received: 10/01/2022 **Accepted:** 31/03/2022 **Published:** 31/03/2022

Abstract:

The aim of this study is to build multiple models of absenteeism during corona virus through which we will explain the effect of job autonomy, skill variety, distributive justice, job satisfaction, organizational commitment, health and Covid-19 on absenteeism from work according to the theoretical framework and litterateur review. For this purpose, we conducted an empirical study for a sample of public institutions in Saida/ Algeria, and in line with the research problem, the process of statistical analysis of data relied on methods of structural equation modeling (SEM) using smart pls.3. The results confirmed a negative significant relationship between absenteeism and job satisfaction this reinforces the hypothesis that absenteeism is only a consequence of dissatisfaction. Therefore, managers must pay attention to the various aspects of the job and workplace, such as interest to distributive justice to increase organizational commitment. In addition, attention to the health of employees by strengthening protection and prevention systems from epidemics such as the Coronavirus in the future to avoid absences by increasing their organizational flexibility in light of future catastrophic events.

Keywords: absenteeism; job satisfaction; organizational commitment; health; Covid-19.
JEL Classification Codes : O15, J28, I15.

ملخص:

من خلال هذه الدراسة نهدف إلى بناء نموذج متعدد للتغيب عن العمل خلال جائحة فيروس كورونا سنشرح من خلاله تأثير استقلالية الوظيفة، تنوع المهارات، العدالة التوزيعية، الرضا الوظيفي، الالتزام التنظيمي، الصحة، و *Covid-19* على التغيب عن العمل وفقًا للإطار النظري والمراجعات الأدبية. لهذا الغرض، أجرينا دراسة تجريبية لعينة من المؤسسات العمومية بولاية سعيدة / الجزائر، وتماشياً مع مشكلة البحث اعتمدنا في التحليل الإحصائي للبيانات على طريقة نمذجة المعادلة الهيكلية *(SEM)* باستخدام *Smartpls 3*. أكدت النتائج وجود علاقة معنوية سلبية بين التغيب عن العمل والرضا الوظيفي هذا يعزز الفرضية القائلة بأن التغيب هو نتيجة عدم الرضا. ولهذا يجب على المديرين الانتباه إلى مختلف جوانب الوظيفة ومكان العمل، كالاهتمام بالعدالة التوزيعية لزيادة الالتزام التنظيمي. بالإضافة إلى الاهتمام بصحة الموظفين من خلال تعزيز أنظمة الحماية والوقاية من الأوبئة كفيروس كورونا في المستقبل لتفادي الغياب عن طريق زيادة مرونتهم التنظيمية في ظل الأحداث الكارثية المستقبلية.

كلمات مفتاحية: تغيب.، رضا وظيفي.، التزام تنظيمي.، صحة.، كوفيد-19

تصنيفات JEL : O15، J28، I15 .

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INTRODUCTION:

Employee absenteeism is a costly yet poorly understood organizational phenomenon (e.g. Johns and Nicholson, 1982; Martocchio and Harrison, 1993; Mowday, Porter and Steers, 1982; Rhodes and Steers, 1990). Absenteeism has long been a major problem spreading in various industrial, administrative, service, etc. sectors, where low job motivation is the primary reason for absenteeism. As a result, theories have been developed and several studies have been undertaken to determine the causes of absenteeism. The most common theory is the idea that absenteeism is caused by dissatisfaction with work. In the same vein, this theory predicts that employees who find their job more challenging and more pleasant will be less absent than employees who find their work less enjoyable. Although it is recognized that absenteeism may be caused by the employee's inability to come to work, motivation to attend work is assumed to be a major factor determining how often an employee is absent. To many in the world of work, absenteeism is one of those stubborn problems for which there is no clear culprit and no easy cures (Thirulogasundaram & Sahu, 2014, p. 64).

Among the most prominent factors mentioned by previous researchers is the low level of employee motivation in the workplace, which is the dissatisfaction with their work. Therefore, it became necessary to search for a solution to this problem by improving employee satisfaction.

Since The World Health Organization declared the outbreak a Public Health Emergency of International Concern on 30 January 2020, and a COVID□19 pandemic on 11 March. This outbreak was first identified in December 2019 in Wuhan, China. The COVID□19 pandemic, also known as the coronavirus pandemic, is an ongoing global pandemic of coronavirus disease 2019 (COVID□19), caused by severe acute respiratory syndrome coronavirus 2 (SARS□CoV□2). Many studies tried to investigated the impact of the COVID-19 pandemic on workers especially after the measures taken by governments to combat this pandemic.

The objective of this research is to test with a population of workers in a public company in the time of COVID-19. A model integrating the direct and indirect effects of several variables identified in the literature as being relevant to explain absenteeism at work in addition to the COVID -19 as a variable affecting the absence of employees in confinement. From this perspective, our model includes job autonomy, skill variety, justice distribution, organizational commitment, health, COVID -19, and job satisfaction as predictors of absenteeism.

This paper reports the results of an empirical test of a causal model of the determinants of absenteeism. According to (Brooke & Price, 1989) and (HENDRIX & SPENCER , 1989) with approach PLS-SEM.

As a remainder the paper is organized as follows, in the next section the concept of absenteeism is presented, section two literature review, section three, section four the empirical results, and the last section concludes.

1-ABSENTEEISM: IT'S CONCEPTUALIZATION

In this study, we adopt the definition of absenteeism from Martocchio and Harrison (1993) who defined it as an individual lack of physical presence at a given location and time when there is a social expectation for him or her to be there, whereas Weiss (1979) defined absenteeism expresses a value judgment, a moral: opinion the absentee is the one who avoids a duty, who gives up a task, habitual absence from work for one or more days, usually justified by medical certificate but, actually, due to personal interests and poor sense of duty.

Besides, the definition becomes more stringent by adding- "Indifference, lack of interest in political and social problems or issues of common interest" (Federica, Massimo, & Luigi , 2014, p. 1159), according to (Darr & Johns, 2008, p. 294) Absenteeism is defined as the failure to report for scheduled work.

Avey, Pater & West, (2006) classified absenteeism to involuntary or voluntary.

Involuntary absence is a real leave taken by the employee in normal circumstances, which is inevitable, for example in cases where the patient is ill. furthermore, they added a sub classification to the later as necessary (inevitable) or unnecessary (avoidable) absenteeism. An essential involuntary absence is an absence where the employee is sick or seriously injured, while an unnecessary involuntary absence is when the employee has an excessive interpretation of the harmless symptoms and therefore remains at home (Guttormsen & Saksvik, 2003; Avey et al., 2006; Chadwick, Nicholson, & Brown 1973) (Nath Gangai, 2014, p. 1258).

2-Literature review:

The multivariate research studies on the causes of absenteeism lack theoretical models. To date, several multivariate models of absenteeism have appeared in the literature luke study of (Brooke & Price, 1989) and model theoretical with (Steers & Rhodes, 1978). Where (Steers & Rhodes, 1978) considered that the undiscovered modified variables cause mixed results. Given these conflicting results, the aim of studies looking at this relationship is either: It seeks to establish the negative relationship between job satisfaction and absenteeism. Or determine the variables that reduce this relationship. All studies published since 1970 similar to studies (Johns, 1978; Muchinsky, 1977; Porter & Steers, 1973; Waters & Roach, 1971, 1973) found a negative relationship between job satisfaction and absenteeism. The most frequently used model is the (Steers & Rhodes, 1978) model. In meta-analyzes, through the study of (Hackett et Guion, 1985, Hackett, 1989) they demonstrated that the negative relationship between job satisfaction and absenteeism is always very weak less than -0.25. As for the study of (Clegg, 1983) based on a study conducted on British workers, the reason for absence did not lack job satisfaction. On the contrary, the absence was preceded by job satisfaction. (Brooke & Price, 1989) model on absenteeism found an indirect relationship between job satisfaction and absenteeism Working with job participation and organizational commitment as intermediate variables, and with a direct negative relationship between job participation and absenteeism. (Goldberg & Waldman, 2000) established a direct and indirect relationship between job satisfaction and absenteeism. Nevertheless this association was examined in the presence of other predictive variables based on Brock's 1989. Model and (Steers and Rhodes, 1978), where job satisfaction was treated as an intermediate variable in predicting absenteeism among many Predictive variables and absenteeism. Using the partial least squares method, the study concluded that there is no significant relationship between satisfaction and absenteeism in the presence of satisfaction as a mediator, health and wage as predictive variables.

(Vandenberghe, Stordeur, & d'Hoore, 2009) concluded that absenteism correlates both morally and negatively with job satisfaction with a value of ($r = - .11$, $p < .05$). As for the results of logistic regression in multivariate modeling, the value of correlation with ($OR = 0.82$, $p < .0001$). As for a study (Romero & Kelly J. Strom, 2011), it found a negative and significant correlation between job satisfaction and absenteeism as much ($r = -27$, $p < .05$).

(Brooke & Price, 1989) found based on path analysis by LISREL that the direct effect of job satisfaction on absenteeism was estimated at (-0.152), while Scott & Taylor (1985) study confirmed a negative relationship between absenteeism and job satisfaction was estimated at -0.15. As for (Romero & Kelly J. Strom, 2011) they found the same results related to job satisfaction, with a significant negative relationship between job satisfaction and the total number of absences was estimated at ($r = -27$, $p < .05$), and a significant negative relationship was also identified between Job satisfaction and voluntary absence ($r = -.25$, $p < .05$).

(Nwahanye, 2016) investigated the relationship between human resources and work rotation. According to the theory of equity at the core of the analysis of this relationship and the need to take into account the state of consent or dissatisfaction at work. For an employee to notice the unfairness of his work involves a procedure that aims to adjust the reward ratio by adopting behaviors such as absenteeism, lack of cooperation, and even voluntary departure (Nwahanye, 2016, p. 89). (Thirulogasundaram & Sahu, 2014) found a moderate and significant inverse relationship between job satisfaction and employee absence from a sample of 200 respondents from 03 organizations. The results showed that 30% of respondents strongly agree that absence means dissatisfaction while 22% They agree to this effect. This indicates that more than half of the respondents agree that absence means job dissatisfaction.

(Van Jaarsveld & Keyser, 2018) based on a sample of 239 worker in a power generation institution in South Africa, they find a negative correlation between job satisfaction and absenteeism in the correlation between job satisfaction as a dependent variable and absenteeism as an independent variable estimated at -0.44 And absenteeism as a dependent variable also had a negative relationship.

In a study ((Schaumberg & Flynn, 2017) where they conducted two studies on two different samples, the first sample includes 454 employees randomly chosen from the telecommunications company in the United States of America. The relationship does not have a higher sense of guilt in reducing absenteeism. The second sample, 227 full-time workers, reached -0.44.

In a study by (Ybema, Smulders, & Bongers, 2010) using a dataset of 1789 employees working in 34 Dutch companies over four years, and by the means of LISREL-analyzes using strong maximum likelihood method (RML), found a significant negative relationship between satisfaction. Career and frequent absences of -0.05 and satisfaction with lost time of -0.04. The study also found the mutual effect between job satisfaction and absenteeism.

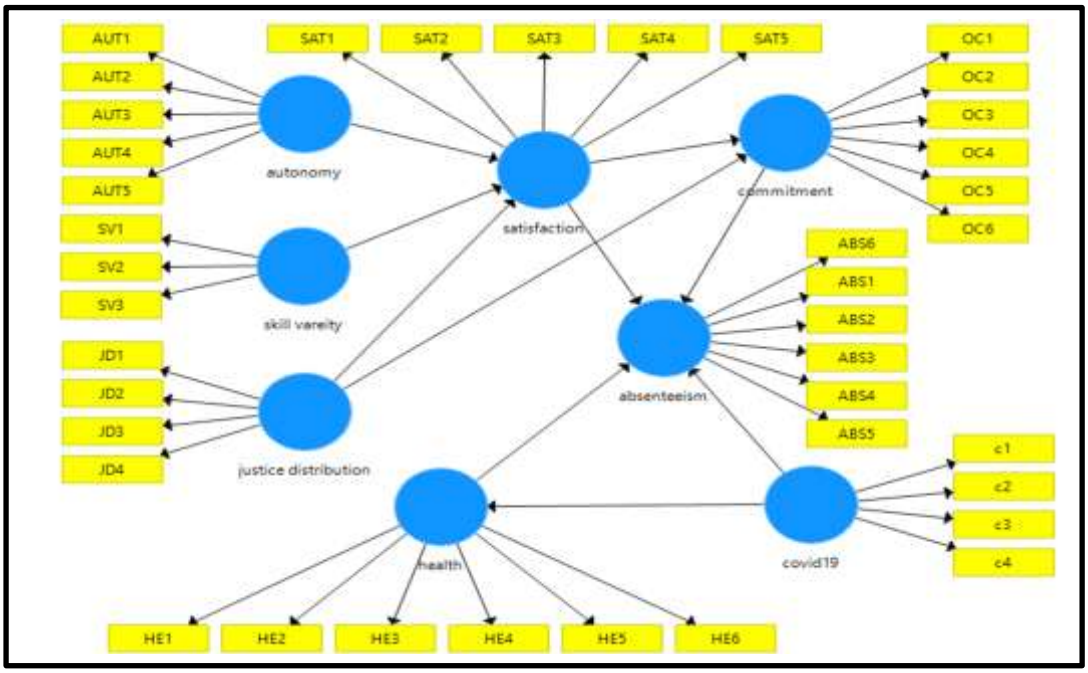
3-Theoratical model of the study (absenteeism model):

To refine and extend the work of Brooke (1989), which his model is based on Ten exogenous variables (routinization, centralization, pay, distributive justice, role ambiguity, role conflict, role overload, work involvement, organizational permissiveness, and kinship responsibility), and (HENDRIX & SPENCER, 1989) who extended the work of the later by making changes in five intervening variables (job satisfaction, job involvement, commitment, health status, and alcohol involvement), which in turn affect absenteeism.

the current study examine the relationship between seven variables named: organizational commitment, job satisfaction, job autonomy, skill variety, justice distribution, absenteeism, health, and covid-19. The role of organizational commitment and job satisfaction is to predict and to mediate the relationship between job autonomy, skill variety, justice distribution and

absenteeism and health. the last variable covid19 is added to predict absence in the time of coronavirus (see figure1).

Fig (1): Mediated model of absenteeism (research model)



Source: Prepared by researchers Using Smart PLS.3

(Brooke & Price, 1989) argues that the relationships job autonomy with absenteeism is a mediate by job satisfaction and justice distribution are an effect indirect by job satisfaction and commitment organizational with absenteeism. According to (HENDRIX & SPENCER , 1989) skill variety is the opposite of the routinization variable discussed by Brooke, it's an effect direct negative with absentee (Farrell & Stamm, 1988) estimated by ($r = -.06$, $p < .05$). Based on (Rentsch & Steel, 2003) where they found that in highly committed units, employees strive to achieve the goals of their organization. Highly committed unit employees may participate in more community maintenance behaviors, including regular attendance at work. Hence, highly-committed work units are likely to relate to more stringent attendance norms (JOHN P, NATHAN J, & ROBERT J, 2008, p. 1225). Therefore, organizational commitment has a direct negative impact on absenteeism. In addition to the health variable, most of the published statistics are 80% of absence due to health reasons (Rapport Heilbronner) (Thébaud & France Lert, 1983, p. 7) ,According to a study (Strömberg, Aboagye, Hagberg, Bergström, & Lohela-Karlsson, 2017) in estimating health costs on productivity, work environment, and job characteristics, the results indicate that absenteeism comes first as a result of health-related problems and the difficulty in finding alternatives, which in turn affect Productivity. These results support previous studies suggested that the costs of health-related and work-environment problems for the organization can exceed the cost of a worker's wage per se. In addition, the COVID-19 as the period variable and its effects in increased absenteeism and disrupting the activities of many public enterprise, The COVID-19 pandemic has imposed several significant detrimental, immediate, and long(er) term, impacts on the Public institutions. The immediate impacts have by become well apparent and reflected in the This was reflected in the lack of public services following governmental lockdown orders. Albeit temporary, such closures have endangered the business

longevity of many enterprises by slashing their revenues because of a collective absence of employees in the work. Table .1 contains definitions of the study variables:

Table (1): variables definitions

Variable	No. of items	Definition
Job satisfaction	**05**	"a pleasurable or positive emotional state resulting from the appraisal of one's job or job experiences " **Locke (1976)** (Michel, Gilles, & Lia, 2013, p. 04)
Organizational commitment	**06**	It is a group feeling of emotional attachment to the organization (Meyer & Allen , 1991)
Job autonomy	**05**	The degree to which the job provides substantial freedom, independence ,and discretion to the individual in scheduling the work and in determining the procedures to be used in carrying it out (HACKMAN & GREC R. OLDHAM, 1976, p. 258)
Skill variety	**03**	The degree to which a job requires a variety of different activities in carrying out the work, which involve the use of a number of different skills and talents of the person (HACKMAN & GREC R. OLDHAM, 1976, p. 257)
Justice distribution	**04**	Distributive justice is based on Adam's (1965) social exchange theory which focused on personal benefit and gain (Gohar, Bashir, Abrar, & Asghar, 2015, p. 155)
Health	**06**	Danna and Griffin's (1999) conceptualization of health includes depression, anxiety, and psychosomatic symptoms (Darr & Johns, 2008, p. 249)
Covid-2019	**04**	a potentially severe respiratory illness caused by a coronavirus and characterized by fever, coughing, and shortness of breath. (https://www.dictionary.com/)

Source: Prepared by researchers according to Literature Review

4-Method:

4-1-data collection

The study population is the public employees in Saida, Algeria. A questionnaire was distributed on a random sample of 500 employees. 450 or 90 percent of the questionnaire were collected back. The final sample consisted of 320 men (71.11 percent) and 130 women (28.8percent).

4-2-Mesures

To achieve the purpose of the previous questionnaire, it was developed to measure the variables of the subject a study, so that the questionnaire was divided into two parts, the first part included individual factors, while the second part was formulated in the form of a number of paragraphs (questions) sufficient to measure each of these areas with a total of 33 questions, and was measured The degree of possible responses according to Likert Scale for all study variables.

4-2-1Mesure of absenteeism

Absenteeism is measured by two types of metrics time-lost and absence frequency (Farrell & Stamm, 1988; Hackett& Guion, 1985; Scott & Taylor, 1985) (Steel, 2003, p. 244). Time-lost measures bring a chronometric sensibility to the conceptualization of absenteeism. These kinds of measures express absenteeism as a sum of units of time (e.g., hours or days) away from work. Time-lost measures assign weight to absence events based on their durations. And

absence frequency the frequency of absences counts the number of absences in a given period. This measure gives more weight to employees who are absent frequently, but it ignores the duration of the absence (Bouville, 2007, p. 02). Because frequency measures tend to assign more weight to 1-day absences than do time-lost measures, Chadwick-Jones et al (1971) propose that frequency measures may be appropriately viewed as measures of ‘‘voluntary’’ absenteeism. Time-lost measures, in contrast, were said to be more indicative of ‘‘involuntary’’ absenteeism.in this study absenteeism is measured with six Item, the first measure was developed by Price & Mueller (19866) and asks ‘During the last three months, how many different times were you off from regularly scheduled work? The second indicator was developed for this study as a recall-assisted measure of the number of times the subject has been absent for any of 12 commonly reported reasons (Hedges, 1973; Morgan & Herman, 1976; Nicholson, 1977) and asks, ‘How many times during the past three months have you taken a half day or more off for any of the following reasons?’ Sample items include ‘family responsibilities ‘, ‘community activities’, ‘personal illness ‘family illness’, ‘medical appointment’, ‘personal business’ and ‘just take a day off’ (Brooke & Price, 1989, p. 5) .Scoring for each reason ranges from 0 for none to 7 for five or more times absent, the third item was developed by Spector **(1987**) and asks, Days missed last 3 months. The last item with **Gregor Bouville** and asks, how many days were you absent during the last 12 months?
The exogenous variables were collected according to the literature review. Survey items consisted of 7-point attitudinal scales. And we measure **Covid-19** with four item that measure absences during the confinement period.

5-Procedure:

Data were analyzed using PLS-SEM (**P**artial **L**east **S**quare **S**tructural **E**quation **M**odeling) method, which is based on analysis of variance and uses the partial least squares approach.
PLS-SEM is primarily used to develop theories in exploratory research. It does this by focusing on explaining the variance in the dependent variables when examining the model. PLS-SEM is evolving as a statistical modeling technique, and while there are numerous introductory articles on the method (e.g., Chin, 1998; Chin, 2010; Haenlein & Kaplan, 2004; Hair, Ringle& Sarstedt, 2011; Henseler, Ringle, & Sarstedt, 2012; Henseler, Ringle, & Sinkovics, 2009; MateosAparicio, 2011; Rigdon, 2013; Roldán & Sánchez-Franco, 2012; Tenenhaus et al., 2005; Wold, 1985) (Hair, Jr, M. Hult, M. Ringle, & Sarstedt, 2014, p. 20).

6-Results and discussion:

the analyses of the adjusted model. This done in two steps: First, the measuring models are evaluated, and, after any adjustments, the path models are evaluated (HENSELER et al., 2009; GÖTZ et al., 2010).

the first aspect to be observed of the measuring models are the Convergent Validities obtained by the observations of the Average Variance Extracted (AVEs). the values of the AVEs should be greater than 0.50 (AVE > 0.50) (Ringle, da Silva, & Bido, 2014), the second aspect is to observe the internal consistency values (Cronbach’s Alpha) and the Composite Reliability (CR). The traditional indicator Cronbach’s Alpha (CA), is based on the variables intercorrelations. CR is the most fitting to PLS, as it prioritizes the variables according to their reliabilities, while the CA is very sensitive to the number of variables in each construct in the two cases, the CA, as well as the CR, are used to evaluate if the sample is free of biases, or

even if the answers in their group are reliable. CA values above 0.60 and 0.70 are considered fitting in exploratory studies and CR values of 0.70 and 0.90 are considered satisfactory (HAIR et al., 2014). The results of the values for adjustment quality for the SEM model are shown in Table2

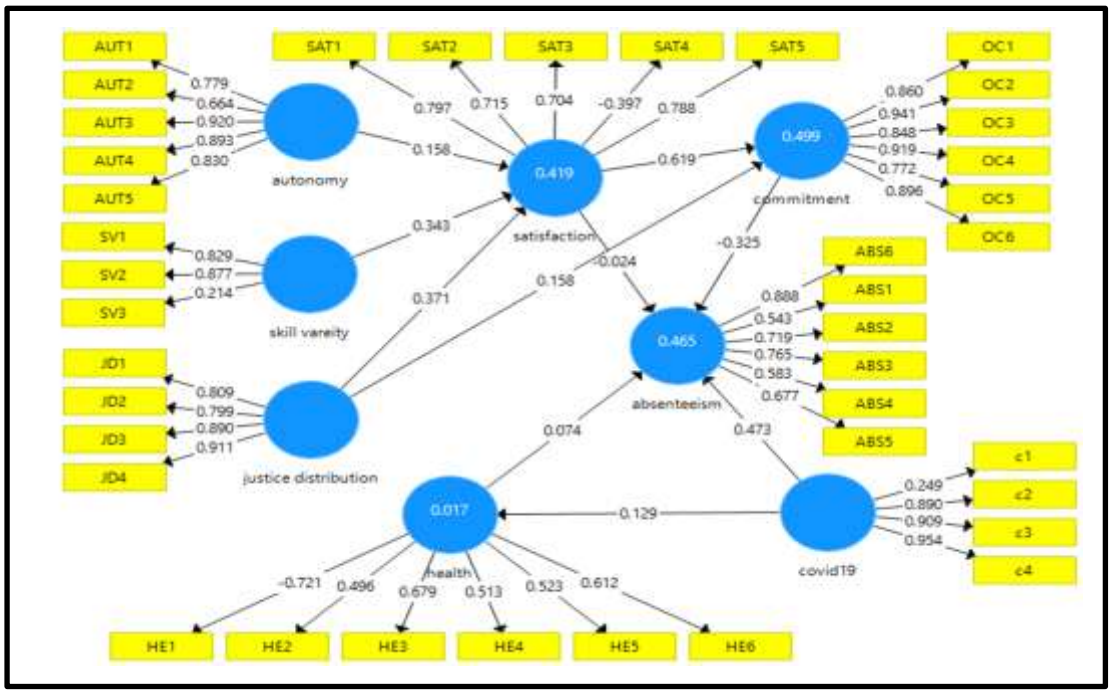
Table (2): Values for adjustment quality for the SEM model

	Alpha Cronbach	rho_A	Fiability composite	Average Variance Extracted (AVE)
Absenteeism	0.79	0.81	0.85	0.49
Commitment organizational	0.93	0.94	0.95	0.76
Job autonomy	0.87	0.90	0.91	0.67
Job satisfaction	0.59	0.75	0.72	0.48
Justice distribution	0.87	0.90	0.91	0.72
Skill variety	0.49	0.66	0.71	0.50
Health	0.62	0.51	0.53	0.35
Covid- 19	0.78	0.92	0.86	0.64

Source: Prepared by researchers Using Smart PLS.3

the analysis of table 1 shows the SEM analysis presents a value of AVE > 0.50 with five LV (commitment organizational, job autonomy, justice distribution, skill variety, covid-2019) in same model the LV have an AVE < 0.50 its absenteeism and health. Therefore, to elevate the value of the AVE, the variables with the factorial lower must be eliminated. The following figure shows the results before deleting of smaller values in the LV (see figure2)

Fig (2): the results before deleting of smaller values in the LV



Source: Prepared by researchers Using Smart PLS.3

The results of the Values for the SEM adjustment quality after the elimination of the Ovs with lower values see **in the table3**

Table (3): Values for the SEM adjustment quality after the elimination of the Ovs with lower values for the factorial loads.

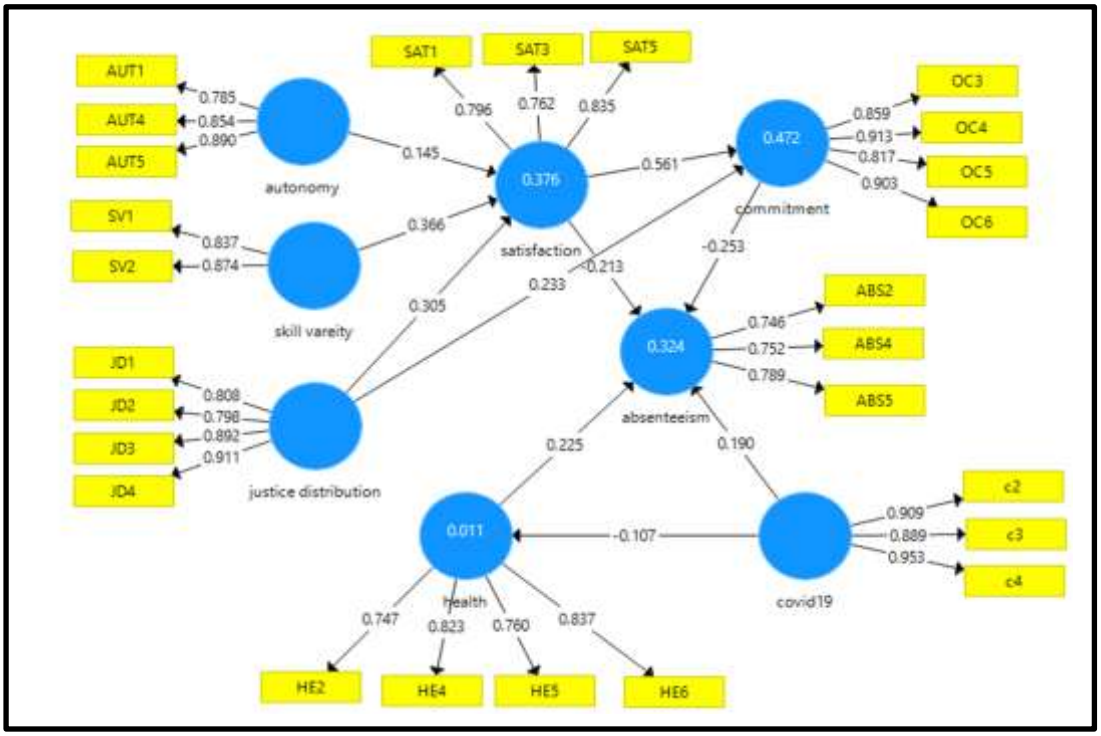
	Alpha de Cronbach	rho_A	Fiabilité composite	Average Variance Extracted (AVE)
Absenteeism	0.64	0.64	0.80	0.58
Commitment organizational	0.89	0.91	0.92	0.76
Job autonomy	0.80	0.85	0.88	0.71
Job satisfaction	0.71	0.72	0.84	0.63
Justice distribution	0.87	0.90	0.91	0.72
Skill variety	0.63	0.64	0.84	0.73
Health	0.81	0.83	0.87	0.62
Covid- 2019	0.90	0.94	0.94	0.84

Source: Prepared by researchers Using Smart PLS.3

The analysis of table 3 shows the SEM analysis presents an value of AVE > 0.50 and CA> 0.60. Thus, we can say that the model converges with a satisfactory result.

The following figure shows the results after deleting of smaller values in the LV (see figure3)

Fig (3): the results after deleting of smaller values in the LV



Source: Prepared by researchers Using Smart PLS.3

The results of the SEM with Smart PLS.3 **Shown in the following tables:**

Table (4): Values of the cross loads of the OVs and LVs

	ABS	AUT	JDC	ORG	SAT	SKIL	Covid19	HE
ABS6	0.74							
ABS8	0.75							
ABS9	0.78							
AUT1		0.78						
AUT4		0.85						
AUT5		0.89						
JD1			0.80					
JD2			0.79					
JD3			0.89					
JD4			0.91					
OC3				0.85				
OC4				0.91				
OC5				0.81				
OC6				0.90				
SAT1					0.79			
SAT3					0.76			
SAT5					0.83			
SV1						0.83		
SV2						0.87		
C2							0.90	
C3							0.88	
C4							0.95	
HE2								0.74
HE4								0.82
HE5								0.76
HE6								0.83

Source: Prepared by researchers Using Smart PLS.3

The next step is to evaluate the Discriminant Validity (DV) of the SEM, which is understood as an indicator that the constructs or latent variables are independent of one another (HAIR et al., 2014) .

In this study, we relied on the criteria of Fornell and Larcker (1981)Which Compare the square roots of the AVE values of each construct with the correlations (of Pearson) between the constructs (or latent variables) (Ringle, da Silva, & Bido, 2014, p. 65)The square roots of the AVEs should be greater than the correlations between the constructs. table 5, shows that the factorial loads of the OVs in the original constructs (LVs) are greater than 0.5. In principle, this means the model has discriminant validity.

Table (5): Values of the correlations between LV and square roots of the AVE values in the main diagonal

	ABS	AUT	OC	Covid19	HE	JD	SAT	SV
ABS	0.763							
AUT	-0.039	0.844						
OC	-0.460	0.327	0.874					
Covid19	0.324	-0.115	-0.261	0.917				
HE	0.220	-0.254	-0.082	-0.107	0.793			
JD	-0.117	0.224	0.456	-0.142	-0.215	0.854		
SAT	-0.454	0.461	0.653	-0.432	0.028	0.397	0.798	
SV	-0.072	0.674	0.313	-0.185	-0.103	0.164	0.514	0.855

Source: Prepared by researchers Using Smart PLS.3

Once the procedures are executed of **Smartpls** in table 5, custom dictates placing the values of the square roots of the AVEs in the main diagonal (Values are in blue) (see table5)

After running **the Bootstrapping module**, we obtain the values of significance the correlations and the coefficients of the regression and then, the values of two other indicators of the quality of the model adjustment are evaluated: Relevance or Predictive Validity (Q^2) or Stone Geisser indicator and Effect Size (f^2) or Cohen's Indicator following in tables (6/7)

Table (6): Values of the indicators of the predictive validity (Q^2) Stone-Geisser indicator and the Effect size ($f^{2)}$.

	ABS	AUT	JD	OC	SAT	SV	Covid19	HE
ABS								
AUT								
JD				0.087	0.142			
OC	0.053							
SAT	0.034	0.018		0.502				
SV					0.117			
COVID19	0.043							0.012
HE	0.073							

Source: Prepared by researchers Using Smart PLS.3

The predictive validity we find it from the **instruction blindfolding**, the results Shown in the following table7:

Table (7): Values of the indicators of the predictive validity (Q^2)

	Q^2
ABS	0.153
SAT	0.217
OC	0.348
HE	0.001
Reference values	**Q2>0**

$$q^2 = \frac{Q^2_{included} - Q^2_{excluded}}{1 - Q^2_{included}},$$

$$q^2 = \frac{0.348 - 0.153}{1 - 0.348} = \mathbf{0.29}$$

Source: Prepared by researchers Using Smart PLS.3

Table (8) : Values of the (R^2)

	R^2
ABS	0.324
OC	0.472
HE	0.011
SAT	0.376

Source: Prepared by researchers Using Smart PLS.3

Table (9): Values of the path coefficients (t) of the adjusted model

Hypothesis	influence	B	p-value	decision
H1	**AUT-SAT**	0.145	0.181	No supported
H2	**OC-ABS**	-0.253	0.020*	supported
H3	**Covid-ABS**	0.190	0.015*	supported
H4	**Covid-HE**	-0.107	0.434	No supported
H5	**HE-ABS**	0.225	0.037*	supported
H6	**JD-OC**	0.233	0.001*	supported
H7	**JD-SAT**	0.305	0.000*	supported
H8	**SAT-ABS**	-0.213	0.048*	supported
H9	**SAT-OC**	0.561	0.000*	supported
H10	**SV-SAT**	0.366	0.002*	supported

Source: Prepared by researchers Using Smart PLS.3

We note through the table that all paths are important, except for the effect of job autonomy on job satisfaction and the impact of COVID-19 on health, despite the negative impact of COVID-19 on the deterioration of employee health**.**

Table (10): TOTAL EFFECTS

	ABS	OC
ABS		
AUT	-0.052/NS/0.198	0.081/NS/0.226
JD	-0.167/Sig.0.000	0.171/sig.0.000
SAT	-0.142/sig.0.048	
SV	-0.130	0.205
COVID19	-0.024/NS.0.472	

Source: Prepared by researchers Using Smart PLS.3

Table (11): INDERCT EFFECTS

	ABS	OC	SAT	HE
ABS				
AUT	-0.052	0.081	0.145	
JD	-0.167	0.404	0.305	
OC	-0.253			
SAT	-0.355	0.561		
SV	-0.130	0.205	0.366	
COVID19	0.166			-0.107
HE	0.225/sig.0.000			

Source: Prepared by researchers Using Smart PLS.3

7-Study Findings and Discussion:

In general, we found significant relationships between the predictor's variables and absenteeism. The previous tables show us direct, indirect effects, as the results presented in the tables above show that the proposed paths in the model have a global impact that is divided into direct and indirect effects as follows:

- The presence of **a direct effect negative** impact of **job satisfaction** on **absenteeism** estimated by (**-0.213**) This result is consistent with all previous studies all studies published since 1970 are modeled studies (Johns, 1978; Muchinsky, 1977; Steers, 1973; Waters & Roach, 1971) they found a negative relationship between job satisfaction and absenteeism and this is confirmed by recent studies such a studying (Romero & Kelly J. Strom, 2011;Federica, Massimo, & Luigi , 2014; Schaumberg & Flynn, 2017; Thirulogasundaram & Sahu, 2014;Brooke & Price, 1989;Vandenberghe, Stordeur, & d'Hoore, 2009) that have unanimously agreed that absenteeism is the result of dissatisfaction. where did the researchers see that job dissatisfaction is the main cause of absenteeism, and that workers will withdraw from their work situations if they are dissatisfied, Brayfield and Crockett (1955) also concluded that dissatisfied workers will often be absent, arguing that there is a direct relationship between satisfaction and absence behavior, Iindirect relationship models indicate that job satisfaction is one of the many variables that influence employee motivation to attend (Steers & Rhodes, 1978). The models also argue that the presence or absence of the satisfaction dimension affects (additional) the size of the employee's motivation for attendance which directly affects absence behavior.

-The presence of a significant **positive effect** between **absenteeism** and **covid-19**, estimated by (**0.190**). and **a negative effect** with **health**, estimated by (**-0.107**). The Coronavirus situation may lead to workplace absences for a variety of reasons, Sickness absence for coronavirus infection, Absence for self-isolation/quarantine under government or medical advice, Absence from work at employer request – whether enforcing an advised quarantine or under the employer's own policies, Absence from work due to compulsory 14-day, Absence from work due to being scared of risk of infection – vulnerable employees, Temporary workplace closure ordered by government , Reduced working hours at employer request all these reasons increase the severity of absences. The pandemic has also negatively impacted mental health globally, including increased loneliness resulting from social distancing.

-Centralization/job autonomy had both **positive** and **negative effect**s on absenteeism. The indirect positive effect, mediated by job satisfaction, supports the relevant hypotheses of the model and those of Steers & Rhodes (1978) that pertain to the autonomy dimension of 'job s Although it was not expected**,** the **negative effect** of **centralization** on **absenteeism** is consistent with other recent research (Hammer & Landau, 198 1; Rhodes & Steers, 198 1). But job Autonomy does not have a significant relationship with either job satisfaction. Because of varying levels of autonomy required for tasks, may consider autonomy irrelevant to their job satisfaction. (Gözükara & Çolakoğlu, 2016)

- The i**ndirect negative effect** on **absenteeism** of **routinization/skill variety,** through its **significant positive effect** on **job satisfaction** estimated by **(0.366)** supports the relevant hypotheses of the model and those of Steers & Rhodes (1978) that pertain to the variety dimension of 'job scope'. The negative indirect effect on absenteeism of work involvement, through its significant positive effect on job satisfaction supports the pertinent hypotheses of

the model and is consistent with the literature that has related work values to job satisfaction (Hulin & Blood, 1968). No support was found for the direct effect of work involvement on absenteeism hypothesized by the causal model and suggested by the Steers & Rhodes (1978) treatment of personal work ethic as a 'pressure to attend.

-The presence of a significant negative effect between **organizational commitment and absenteeism**, estimated by (**-0.253**). This result is consistent with the study (Rentsch & Steel, 2003) and the study (Farrell and Stamm, 1988) where they found that in highly committed units, employees strive to achieve the goals of their organization. Highly committed unit employees may engage in more community maintenance behaviors, including regular attendance at work. Hence, highly committed work units are likely to be associated with stricter attendance standards.

- The presence of a significant **positive effect** between **health** and **absenteeism,** estimated by (**0.225**). This study is rreverse with the study (Brook and Price 1989) and the study of (Jinhee Kim and Tomas Graman, 2003) This explains the deterioration in employee health that increases absenteeism.

-The presence of a significant positive effect between **job satisfaction** and **organizational commitment**, estimated by (**0.561**) this result is consistent with the studying (Lerouge & Blanton, 2014) (Rajabi, Boles, Brashear Alejandro, & Sarin, 2019) (Ruiz-Palomo, León-Gómez, & García-Lopera, 2020), This result explains that workers who are satisfied with their work are more willing to commit to their organization and stay in work for a longer period than dissatisfied workers.

-The presence of a significant positive effect between **justice distribution** and **organizational commitment**, estimated by (**0.233**). The result is explained by the importance of distributive justice in organizations to increase the commitment of their employees. Therefore, organizations must put a deep view of the status of distributive justice to enhance the level of organizational commitment of their employees, which is positively reflected in reducing the phenomenon of absenteeism.

-The presence of a significant negative indirect effect between **justice distribution** and **absenteeism** mediates by **organizational commitment**, estimated by (**-0.167**). These results, therefore, reinforce the importance of being interested in justice in order to counter absenteeism in the workplace.

-The presence of a significant positive effect between **justice distribution** and **job satisfaction**, estimated by (**0.305**). consistent with study (Lerouge & Blanton, 2014), This is explained by the importance of distributive justice in raising job satisfaction and reducing absenteeism, as workers see that fairness in the distribution of wages among employees compared to the work, they do increases job satisfaction and reduces absenteeism. Employees regard to pay as the primary factor in job satisfaction

8-Conclusion:

Our results indicate that job satisfaction affects absenteeism directly and indirectly through organizational commitment. This reinforces the hypothesis that absenteeism is only a consequence of dissatisfaction and that job satisfaction is one of the many variables that affect employee motivation to attend. Therefore, managers must pay attention to the various aspects of the job and workplace, as well as facilitate attendance mechanisms, for example relieving life pressures by relying on their colleagues in the same work unit. Attention to distributive

justice to increase organizational commitment and employee loyalty to the organization. In addition, attention to the health of employees by strengthening protection and prevention systems from epidemics such as the Coronavirus in the future to avoid absences by increasing their organizational flexibility in light of future catastrophic events.

Lastly, the study contributes to the theory of Attention to the health sector and the health of employees in the public sector by and effective organizational response to a crisis on job security. This will become particularly important in the foreseeable future given the magnitude of global disastrous events are anticipated to increase with their potential, negative impact on the public service and economic sector.

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