Research Article

# Working From Home Facilities Model During Pandemic Situation

# Irwan Mohammad Ali<sup>1</sup>, MdYusof Hamid<sup>2</sup>, MohdAzian Zaidi<sup>3</sup>, Wan SamsulZamani Wan Hamdan<sup>4</sup>, Nor Amin Mohd Radzuan<sup>5</sup>

<sup>1,2,3,4,5</sup>Faculty of Architecture, Planning and Surveying, Universiti Teknologi MARA, Perak Branch, Seri Iskandar Campus, Seri Iskandar, 32610 Perak, Malaysia. irwan9471@uitm.edu.my<sup>1</sup>

Article History: Received: 10 November 2020; Revised: 12 January 2021; Accepted: 27 January 2021; Published online: 05 April 2021

**Abstract:** Since WHO declare COVID-19 as a pandemic, it has changed the way of our life today. Mostly, all countries in the world implementing lockdown or movement control to stop the spreading. In Malaysia, the government announced a Movement Control Order (MCO) which requires the closure of all businesses except those providing essential services and items. This affects most business operations and companies have to switch to Working From Home (WFH). This paper aim to propose WFH Facilities Model during a pandemic (COVID-19). The scope of this study pertains to Malaysian citizens. The main methods used in this research were a deductive approach that suit to cross-sectional research. This research employs a simple random sampling technique to achieve the required minimum sample size. Therefore, to gather data, a questionnaire survey technique was selected.Meanwhile, using the SmartPLS3, structural equation modeling (SEM) technique was used to test the research hypotheses. A total of 500 questionnaires distributed, only 363 sets were replied to and completed with a high response rate of up to 73%. The findings of the study show that from six research hypotheses, only two hypotheses are supported which are Work-Family Related (WF) and Modern Technology (MT).Hence, this study recommends that it is important for any organisation that wants to implement WFH to pay an attention to both attributes.

Keywords: Working From Home, Working Facilities, Movement Control Order, Model, Pandemic COVID-19

# 1. Introduction

The spreading of COVID-19 has caused shock to the world's economy and devastating human toll. The Emergency Committee of the World Health Organization (WHO) declared a global health emergency based on increasing case-reported rates in China and globally.(Velavan & Meyer, 2020).Furthermore, the WHO announcedCOVID-19 as a global pandemic on 11 March 2020 (Shah et al., 2020). Until October 2020, COVID-19 has spread to numerous different countries and now in the third wave. Most countries have implemented extreme lockdown, movement control, or shelter orders on their residents in an attempt to reduce the outbreak of COVID-19. The spread of COVID-19 was greatly mitigated in China by the drastic prevention strategies enforced(Kraemer et al., 2020). Consequently, the success of these preventive measures is therefore highly dependent on the cooperation and compliance of all members of society as a whole (Azlan et al., 2020). The response of most countries involves contact tracking, self-isolation or quarantine, the promotion of public health initiatives, the improvement of health services, the strengthening of health facilities, and the postponement or cancellation of large-scale public events(Bedford et al., 2020).Hence, most businesses, therefore, introduce flexible working structures such as teleworking, distance learning, crowd limitation and avoidance, closure of non-critical facilities and services (WHO, 2020). These initiatives ensure a physical distance between individuals and minimize interaction with polluted surfaces, while at the same time fostering and preserving virtual social interactions within families and communities. This approach is also known as Working From Home (WFH). WFH could potentially become a norm for many businesses following the pandemic situation. WFH means an employee is working from their space (house, apartment, or place of residence), rather than working from the office either full-time or when it's most convenient for them.

It is observable during the COVID-19 pandemic that the workforce and the way of working are shifting dramatically and expected to expand(Ahmadi et al., 2000; Montenovo et al., 2020).Most working sector, including management, professional and related occupations were more likely to shift toward WFH (Brynjolfsson et al., 2020). This transition might serve as the catalyst for a new way of doing business for years to come (Deng et al., 2020). It is no doubt that WFH led to a 13% performance increase, improved employer satisfaction, and their attrition rate halved. This shows the advantages of learning and selection effects when new management approaches like WFH are introduced (Bloom et al., 2015).In WFH, the notion of work transformation, the convergence of people, space, and technology with a direct emphasis on business operations is crucial. WFH's ultimate aim is to help businesses break out of their conventional job description and shift to a more agile, inspiring, communicating, and satisfying environment Work transformation offers the ability for groups of facilities to play a crucial strategic role in serving the rapidly evolving environment and providing the business with real strategic value-added. In terms of the real office and the rapidly growing virtual office, work

transition is focused on facilities management, human resources, and information technology, all working together to create more innovative ways of managing space (Hassanain, 2006; Robertson, 2000). Thus, in the case of WFH, the provision of services should ensure facility functionality like effective virtual connectivity and accessibility (Kojo & Nenonen, 2015).

# 2. Research Conceptual Model and Hypotheses

Primarily, based on the theory of planned behaviour (TPB), a research conceptual model was developed. The most prominent social psychological model for understanding and predicting human behaviour in particular contexts (Ajzen, 2001). The TPB is defined as an individual's intention to perform a given behaviour and is generally assumed to capture the motivational factors that determine individual behaviours, such as effort and willingness to perform a behaviour. This research conceptual model was established on the basis of six determining factors identified by the authors in the previous research. The six determinant factors for WFH Facilities consists of Work-Family Related (WF); Organisational Support (OS); Working Culture (WC); Job Autonomy (JA); Modern Technology; and Social Media (SM).

The first determinant factor is Work-Family Related (WF). It can be interpreted as the fulfillment of rolerelated expectations that are accepted and shared in the work and family environments between a person and his or her partners (Grzywacz & Carlson, 2007). The WFitemsincludedmanaging work obligations, doing jobs while relaxing at home, emotional support fromfamily, isolatework and family priority, and resisting lifestyle with the current situation. In line withNoor (2003) study, these WFitems were expected to be related to work-family conflict and well-being during the pandemic COVID-19.

Secondly, the determinant factors of Organisational Support (OS) can be described as the beliefs of employees about the degree to which the company values its commitment and cares about its well-being (Eisenberger et al., 2004; Satardien et al., 2019). The OS itemsincludedemployer understanding, assisting withfamily-friendly, responsive, improves kills and on-job training, treated withtrust and respect. Hence, support of the organisation is essential for employees' to perform according to the transforming work environment (Halcomb et al., 2020).

The third determinant factor is Working Culture (WC)that can be defined as a set of informal norm values and norms. The WC control the way people or groups in an organisation interact with eachotherinsideand outside the organisation(Akbar et al., 2019). The WC items included working extra time, two-way communication, regular feedback, positive environment, flexible location to do jobs, and sufficient workloadto do. Apart from that, WC isanticipated to generates values and beliefs in the organisation(Ali et al., 2019), definitely during pandemic COVID-19.

The fourth determinant factor is Job Autonomy (JA). JA can be identified as the degree to which the job offers the employee considerable freedom, independence, and discretion in scheduling the work and in specifying the procedures to be used in carrying it out (De Spiegelaere et al., 2016).JA can be divided into two main dimensions: work schedule (with the autonomy to schedule the task) and work procedures (with the autonomy to choose strategy) (Khoshnaw & Alavi, 2020). The JA items included precise job criterion, detail work procedure, sufficienttimeframe,input in decision-making, and personal initiative.Inadvanced, JA improvedtheeffect ofbalancedemotionon employee voice, which, in turn, enhanced the mediated relationship between empowering leadership and employee voice via harmoniouspassion(Gao & Jiang, 2019).

The next determining factors are the needs of Modern Technology (MT), which is identified by the ability to automate business processes and present information sufficiently (Beliaeva & Chernyavskaya, 2019). The way people live has definitely been changed by technology. It has influenced numerous aspects of life and redefined life (Raja & Nagasubramani, 2018). The MT items included surveillancecamera, video and audiorecordings, internet network, supporting computer devices, mobile gadgets, and work-related mobile applications. During pandemic COVID-19, the modern technology has contributed in improving people's lives (Kumar et al., 2020).

Lastly, the determinant factor of Social Media (SM) can be defined as a series of technological innovations in both hardware and software that facilitate inexpensive content creation, interaction, and interoperability for creative online users(Berthon et al., 2012; Wang & Kim, 2017). TheSM variables that contribute to job performanceincludedFacebook,Instagram, WhatsApp, YouTube, Google Scholar, andResearchGate.During the ongoing COVID-19 outbreak, individuals operating on the SM were able to obtain and share various types of data on a wide and extraordinary scale (Li et al., 2020).

In particular, all the six determinant factors are included in the research conceptual model. This research conceptual model consists of 34 items for independent variables and five items for dependent variables. Hence, six hypotheses were established based on the research conceptual model, as shown in Figure 1.



Figure 1. Research Conceptual Model

H1: There is a significant relationship between the determinant factor of the Work-Related Family for WFH performance during a pandemic situation.

H2: There is a significant relationship between the determinant factor of the Organisational Support for WFH performance during a pandemic situation.

H3: There is a significant relationship between the determinant factor of the Working Culture for WFH performance during a pandemic situation.

H4: There is a significant relationship between the determinant factor of the Job Autonomy for WFH performance during a pandemic situation.

H5: There is a significant relationship between the determinant factor of the Modern Technology for WFH performance during a pandemic situation.

H6: There is a significant relationship between the determinant factor of the Social Media for WFH performance during a pandemic situation.

#### 3. Methods

The primary methods used in this research were a deductive approach that suit to cross-sectional research. This research employs a simple random sampling technique to achieve the required minimum sample size for a questionnaire survey technique to collect data. Meanwhile, the structural equation modeling (SEM) approach was used to test the research hypotheses using the SmartPLS 3 software. The analysis was carried out in two stages: i) the measurement model assessment, and ii) the structural model assessment. The measurement model assessment involved examining the adequacy of the model by analysing the relationships between each determinant factor and items in independent and dependent variables. Meanwhile, the structural model assessment is the part that associateswith independent and dependent variables. After satisfying the prerequisites of measurement model assessment have to proceed with the evaluation of thestructuralmodelforthe collinearityissue. In addition, all the threshold values for every criterion were clearly represented under the conclusion to have a comprehensive understanding of the evaluation of measurement and structural model.

The sufficient sample size from the local population was properly identified using a simple random sampling technique. The simple random sampling technique is a popular type of random or prospect sampling (Al Ghayab et al., 2016; Gupta & Shabbir, 2008). In this technique, each sample of the population has the same chance of being selected as a subject. The sampling unit of analysis for this research was a Malaysian citizen. Therefore,

the minimum sample size for this research is between 271 for a 90% confidence level with a 5% confidence interval (error margin); and 385 for a 95% confidence level with a 5% confidence interval. A total of 500 questionnaires was circulated via a web-based self-administered questionnaire using the Google Forms survey. Out of 500 questionnaires distributed, only 363 sets were replied to and completed with a high response rate of up to 73%. The findings of the study show that from six research hypotheses, only two hypotheses are supported which are Work-Family Related (WF) and Modern Technology (MT). Hence, this study recommends that it is important for any organisation that wants to implement WFH to pay an attention to both attributes.

# **Demographic Data**

Throughout the simple random technique, potential respondents were randomly identified and invited to take part in this study. Then, the frequency descriptive analysis was carried out to attain the demographic profile of the respondents who answered the questionnaire. The demographic data consists of several categories such as age, gender, academic qualification, occupation, and time allocation for WFH of the respondent. The questionnaires were answered by respondents who are WFH during the COVID-19 MCO. A total of 500 questionnaires was distributed via a web-based self-administered questionnaire. Out of 500 questionnaires distributed, only 363 sets were replied to and completed. This clearly shows the response rate is 73%, which is considered high responses.

A detailed overview of the demographic profiles of the respondents is presented in Table 1. Based on the response, most of the respondents are from the age group of 21 to 30 years old (43.3%) and 31 to 40 years old (37.5%), and minimal respondents within the range of 41 to 50 years old group (16%). Male respondents slightly outnumber female respondents, total numbers of 54.6 percent as against 45.5 percent, respectively. The majority of the respondents have a Master's Degree with 106 respondents (29.5%), followed by Bachelor's Degree with 96 respondents (26.4%), SPM/STPM/Certificate with 56 respondents (15.4%), and Ph.D. with 53 respondents (14.6) as their highest educational qualification. In terms of occupation, the questionnaire was mostly answered by the government servants with a total of 130 respondents (35.8%). Then followed by internship students (including the SLIM program) and from the private sector with 111 respondents (30.6%) and 106 respondents (29.2%), respectively. In general, the allocation time for WFH shows most of the respondents spent time within 4 to 12 hours daily. Specifically, 4 to 8 hours and 8 to 12 hours are highly rated with 185 respondents (51%) and 131 respondents (36.1%), respectively.

Catagory	Indicator	Frequen	Valid	Cumulative
Category	mulcator	cy	Percent	Percent
	21 - 30 years old	157	43.3	43.3
	31 - 40 years old	136	37.5	80.7
ACE	41 - 50 years old	58	16.0	96.7
AGE	51 - 60 years old	10	2.8	99.4
	Over 61 years old	2	0.6	100.0
	Total	363	100.0	
	Male	165	45.5	45.5
GENDER	Female	198	54.5	100.0
	Total	363	100.0	
	SPM/STPM/Certificate	56	15.4	15.4
	Diploma	51	14.0	29.5
	Bachelor Degree	96	26.4	55.9
ACADEMIC	Master	107	29.5	85.4
	PhD	53	14.6	100.0
	Total	363	100.0	
	Student	111	30.6	30.6
OCCUPATION	Government Sector	130	35.8	66.4
	Private Sector	106	29.2	95.6
	Business	16	4.4	100.0

Table 1 Respondent profile

	Total	363	100.0	
	1 - 4 hours	1	0.3	0.3
	4 - 8 hours	185	51.0	51.2
	8 - 12 hours	131	36.1	87.3
TIME WFH	12 - 16 hours	36	9.9	97.2
	More than 16 hours	10	2.8	100.0
	Total	363	100.0	

# 4. Results and Findings

#### **Structural Equation Modelling**

Structural Equation Modelling (SEM) is the analysis technique used in this research, which is a multivariate analysis technique based on the ideas used in regression analysis that overcomes important and statistical problems with more traditional approaches. In this analysis, there are two assessments conducted: measurement model assessments and structural model assessment.

#### **Measurement Model Assessment**

To provide rigorous testing of the reliability and validity of the research model, the evaluation of the measurement model is important. It is also used for latent constructs and their manifest variables to be evaluated (Loehlin, 1998). For the evaluation of the measurement model, several steps were used in this analysis, including the evaluation of convergent validity and discriminant validity for independent and dependent variables. The summary of the indicator loadings shown in Table 2. The first attempt to establish a measurement model indicates that indicator loading for WC1 and MT1 are lower thanthe0.6 cut-off thresholdvalue. Therefore, these two items were greater than 0.60 and indicator loadings ranged from 0.67 to 0.92. Items withindicator loadings exceed 0.60 were considered high significant (Hair et al., 2010). High indicator loadings indicate that measurements had convergent validity.

 Table 2.Indicator loading				
 Items	1	2		
 WF1	0.778372	0.778382		
WF2	0.846690	0.846688		
WF3	0.850404	0.850396		
WF4	0.775217	0.775219		
WF5	0.836070	0.836065		
WF6	0.806724	0.806731		
OS1	0.906462	0.906449		
OS2	0.920936	0.920929		
OS3	0.920624	0.920617		
OS4	0.719226	0.719258		
OS5	0.865296	0.865298		
<del>WC1</del>	<del>0.025009</del>	Item Removed		
WC2	0.802643	0.800475		
WC3	0.825490	0.826398		
WC4	0.865200	0.869502		
WC5	0.746088	0.748868		
WC6	0.769516	0.771781		
JA1	0.802785	0.802785		
JA2	0.794830	0.794830		
JA3	0.817941	0.817927		

Irwan Mohammad Ali, Md Yusof Hamid, Mohd AzianZaidi, Wan SamsulZamani Wan Hamdan,					
Nor Amin Mohd Radzuan					

JA4	0.802557	0.802559
JA5	0.797488	0.797500
MT1	<del>0.463370</del>	Item Removed
MT2	0.679930	0.676956
MT3	0.862951	0.864865
MT4	0.916256	0.921003
MT5	0.892374	0.900202
MT6	0.811424	0.819370
SM1	0.739817	0.739885
SM2	0.719295	0.719376
SM3	0.748805	0.748729
SM4	0.744402	0.744398
SM5	0.740080	0.740051
SM6	0.711402	0.711403
BF1	0.716842	0.717067
BF2	0.791390	0.791457
BF3	0.850294	0.849952
BF4	0.843673	0.843460
BF5	0.679558	0.679995

#### Table 3.Internal consistency reliability & convergent validity

	Cronbach's Alpha	Composite Reliability	AVE
Working From Home Facilities	0.836407	0.884740	0.607365
Work-Family Related	0.899763	0.922800	0.666119
Organisation Support	0.917542	0.939131	0.756674
Social Media	0.835961	0.875157	0.538904
Working Culture	0.862967	0.901464	0.647236
Job Autonomy	0.862608	0.900855	0.645066
Modern Technology	0.893639	0.922782	0.707248

In order to established internal consistency reliability and convergent validity, all construct factor loadings and AVE must exceed the acceptable 0.5 cut-off threshold value(Hair et al., 2010). In this research, the AVE was exceeding the0.5 cut-off threshold value and considered satisfactory(refer to Table 3). Every variable/item was found to have great convergent validity based on good composite reliability (>0.8); thus, based on results in Table 3, the study's measurement model demonstrated high satisfactory convergent validity.

The evaluation of discriminant validity is the next step in the validation process of the construct. Discriminate validity was assessed here by analyzing the cross-loads of each construct item and the measured square root of AVE for each construct. On their corresponding construct, all objects should have higher loading than cross-loading on other constructs in the model. For all factors, the square root of AVE should be larger than all the correlations between that construct and other constructs. Table 4 indicates that the AVE (in bold in Table 4) diagonal values is greater than the AVE off-diagonal values. Hence, discriminant validity was established by the test.

#### Table 4.Discriminate Validity

	AVE	
Working From Home Facilities	0.60737	0.77639
Work-Family Related	0.66612	0.81558
Organisation Support	0.75667	0.86651
Social Media	0.53890	0.73397
Working Culture	0.64724	0.80340
Job Autonomy	0.64507	0.80312
Modern Technology	0.70725	0.83648

# Structural Model Assessment

The next step in the process is to assess the path coefficient of all items by comparing beta ( $\beta$ ) values among all paths. The path coefficient represents hypothesized relationships between WFH facilities determinants on WFH performance. The highest  $\beta$  value indicates the strongest impact of WFH facilities determinants (independent variables) on WFH performance (dependent variables). According to Hair et al. (2014), path coefficients should exceed 0.10 to account for a certain impact within a model. However, the  $\beta$  value must be tested for its significance level through the t-value test, carried out by performing a non-parametric bootstrapping technique (Chin, 1998). Therefore, to test the statistical significance of each path coefficient, a bootstrap resampling procedure has been used. The number of resample iterations for this research was 5,000 to generate a stable estimation, as suggested by Henseler et al. (2016).

### Table 5. Hypotheses Result

	Path Coefficient (β)	t-value	Remarks
Work-Family Related> Working From Home Facilities	0.32404	3.18176***	Supported
Organisation Support> Working From Home Facilities	0.02964	0.25753	Not Supported
Social Media > Working From Home Facilities	0.01565	0.17828	Not Supported
Working Culture > Working From Home Facilities	0.12050	0.89986	Not Supported
Job Autonomy > Working From Home Facilities	0.10481	0.96079	Not Supported
Modern Technology > Working From Home Facilities	0.33630	2.97559***	Supported

Results from Table 5 show that most of the  $\beta$  values are exceeding the cut-off point value of 0.01 for all items, as suggested by Hair et al. (2014). The highest  $\beta$  value of WFH facilities determinants which indicates the most significant impacts on WFH performance. The highest  $\beta$  results were 0.336 for modern technology. Meanwhile, the lowest  $\beta$  results were 0.016 for social media. According to Hair et al. (2014), it is suggested that acceptable t-values for a two-tailed test is 1.64 (significance level = 0.10 or 10%), 1.96 (significance level = 0.05 or 5%) and 2.58 (significance level = 0.01 or 1%). Hence, the t-values of modern technology and work-family related were 2.976 and 3.182, respectively. Itshowshigher than minimum cut-off significance values, which were at least 0.01 or 1%. This indicates that both factors of Work-Family Related and Modern Technology have a significant relationshipto the WFH performance of this research. The other determinants which are Social Media, Organisation Support, Working Culture, and Job Autonomy had a smaller amount of significant relationships on WFH performance, respectively.



#### 5. Conclusion

The global spread of COVID-19 is keeping people at home. Most employers are encouraging or requiring their employees to WFH for an indeterminate amount of time. This situation gives big impacts on business operations for most organisations. Therefore, organisation members that remote to the WFH lifestyle need to change their habits, routines and surely supporting facilities to make WFH a success. In this study, the significant relationship of WFH Facilities determinants on improving WFH performance was identified. Two hypotheses, i) Work-Related Family, and ii) Modern Technology had a significant relationshipwithWFH performance (based on the current situation). Therefore, it is recommended for any organisations that preferring to implement WFH as an effective solution during the pandemic situation to use this WFH Facilities model that focuses on both factors Work-Family Related and Modern Technology. As this research was exploratory, it is proposed that for future research, a longitudinal research methodology should be used.

# 6. Acknowledgement

This research is sponsored under GeranAnugerahAkademikUniversiti. The authors would like to express their deepest gratitude to UniversitiTeknologi MARA, Cawangan Perak.

#### References

- Ahmadi, M., Helms, M. M., & Ross, T. J. (2000). Technological developments: Shaping the telecommuting work environment of the future. Facilities, 18, 83–89. https://doi.org/10.1108/02632770010312204
- 2. Ajzen, I. (2001). Nature and Operation of Attitudes. Annual Review of Psychology, 52(1), 27–58. https://doi.org/10.1146/annurev.psych.52.1.27
- Akbar, M. F., Akbar, M., &Mukhtar, M. (2019). The Effect of Supervision, Work Culture, and Trust to the Performance of Elementary Public-School Principal of West Jakarta City.35–40. https://doi.org/10.2991/picema-18.2019.7

- Al Ghayab, H. R., Li, Y., Abdulla, S., Diykh, M., & Wan, X. (2016). Classification of epileptic EEG signals based on simple random sampling and sequential feature selection. Brain Informatics, 3. https://doi.org/10.1007/s40708-016-0039-1
- Ali, I. M., Zaidi, M. A., Ismail, K., &Ariff, M. I. M. (2019).Influences of Knowledge Sharing in Improving Facilities Management Performance of Private Finance Initiative Projects. International Journal of Academic Research in Business and Social Sciences, 9(2), 971–988. https://doi.org/10.6007/IJARBSS/v9-i2/5655
- Azlan, A. A., Hamzah, M. R., Sern, T. J., Ayub, S. H., & Mohamad, E. (2020). Public knowledge, attitudes and practices towards COVID-19: A cross-sectional study in Malaysia. PLOS ONE, 15(5), e0233668. https://doi.org/10.1371/journal.pone.0233668
- Bedford, J., Enria, D., Giesecke, J., Heymann, D. L., Ihekweazu, C., Kobinger, G., Lane, H. C., Memish, Z., Oh, M. don, Sall, A. A., Schuchat, A., Ungchusak, K., &Wieler, L. H. (2020). COVID-19: towards controlling of a pandemic. In The Lancet (Vol. 395, Issue 10229, pp. 1015–1018). Lancet Publishing Group. https://doi.org/10.1016/S0140-6736(20)30673-5
- Beliaeva, L., &Chernyavskaya, V. (2019).Technical writer in the framework of modern natural language processing tasks. Journal of Siberian Federal University - Humanities and Social Sciences, 12(1), 20–31. https://doi.org/10.17516/1997-1370-0377
- Berthon, P. R., Pitt, L. F., Plangger, K., & Shapiro, D. (2012). Marketing meets Web 2.0, social media, and creative consumers: Implications for international marketing strategy. Business Horizons, 55(3), 261–271. https://doi.org/10.1016/j.bushor.2012.01.007
- Bloom, N., Liang, J., Roberts, J., & Ying, Z. J. (2015). Does working from home work? Evidence from a chinese experiment. Quarterly Journal of Economics, 130(1), 165–218. https://doi.org/10.1093/qje/qju032
- Brynjolfsson, E., Horton, J., Ozimek, A., Rock, D., Sharma, G., &TuYe, H.-Y. (2020). COVID-19 and Remote Work: An Early Look at US Data. In National Bureau of Economic Research (No. 27344). https://doi.org/10.3386/w27344
- Chin, W. W. (1998). Commentary: Issues and Opinion on Structural Equation Modeling. In MIS Quarterly (Vol. 22). Management Information Systems Research Center, University of Minnesota. https://doi.org/10.2307/249674
- De Spiegelaere, S., Van Gyes, G., & Van Hootegem, G. (2016). Not All Autonomy is the Same. Different Dimensions of Job Autonomy and Their Relation to Work Engagement & amp; Innovative Work Behavior. Human Factors and Ergonomics in Manufacturing & Service Industries, 26(4), 515– 527. https://doi.org/10.1002/hfm.20666
- 14. Deng, Z., Morissette, R., & Messacar, D. (2020).Running the economy remotely: potential for working from home during and after COVID-19. NCVER's International Tertiary Education Research Database.
- Eisenberger, R., Lynch, P., Aselage, J., &Rohdieck, S. (2004). Who takes the most revenge? Individual differences in negative reciprocity norm endorsement. Personality and Social Psychology Bulletin, 30(6), 787–799. https://doi.org/10.1177/0146167204264047
- F. Hair Jr, J., Sarstedt, M., Hopkins, L., & G. Kuppelwieser, V. (2014). Partial least squares structural equation modeling (PLS-SEM). European Business Review, 26(2), 106–121. https://doi.org/10.1108/EBR-10-2013-0128
- Gao, A., & Jiang, J. (2019). Perceived Empowering Leadership, Harmonious Passion, and Employee Voice: The Moderating Role of Job Autonomy. Frontiers in Psychology, 10(JULY), 1484. https://doi.org/10.3389/fpsyg.2019.01484
- Grzywacz, J. G., & Carlson, D. S. (2007). Conceptualizing Work—Family Balance: Implications for Practice and Research. Advances in Developing Human Resources, 9(4), 455–471. https://doi.org/10.1177/1523422307305487
- 19. Gupta, S., &Shabbir, J. (2008). On improvement in estimating the population mean in simple random sampling. Journal of Applied Statistics, 35(5), 559–566. https://doi.org/10.1080/02664760701835839
- 20. Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). Multivariate Data Analysis. Pearson.
- Halcomb, E., Williams, A., Ashley, C., McInnes, S., Stephen, C., Calma, K., & James, S. (2020). The support needs of Australian primary health care nurses during the COVID-19 pandemic. Journal of Nursing Management, 28(7), 1553–1560. https://doi.org/10.1111/jonm.13108
- 22. Hassanain, M. A. (2006). Factors affecting the development of flexible workplace facilities. In Journal of Corporate Real Estate (Vol. 8, Issue 4, pp. 213–220). https://doi.org/10.1108/14630010610714880
- 23. Henseler, J., Hubona, G., & Ray, P. A. (2016).Using PLS path modeling in new technology research: updated guidelines. Industrial Management & Data Systems, 116(1), 2–20. https://doi.org/10.1108/IMDS-09-2015-0382

- Khoshnaw, S., &Alavi, H. (2020). Examining the Interrelation Between Job Autonomy and Job Performance: A Critical Literature Review. Multidisciplinary Aspects of Production Engineering, 3(1), 606–616. https://doi.org/10.2478/mape-2020-0051
- 25. Kojo, I. V. I., &Nenonen, S. (2015). Places for multi locational work-opportunities for facilities management. Facilities, 33, 20–37. https://doi.org/10.1108/F-05-2013-0043
- Kraemer, M. U. G., Yang, C. H., Gutierrez, B., Wu, C. H., Klein, B., Pigott, D. M., du Plessis, L., Faria, N. R., Li, R., Hanage, W. P., Brownstein, J. S., Layan, M., Vespignani, A., Tian, H., Dye, C., Pybus, O. G., &Scarpino, S. V. (2020). The effect of human mobility and control measures on the COVID-19 epidemic in China. Science, 368(6490), 493–497. https://doi.org/10.1126/science.abb4218
- Kumar, A., Gupta, P. K., &Srivastava, A. (2020). A review of modern technologies for tackling COVID-19 pandemic. Diabetes and Metabolic Syndrome: Clinical Research and Reviews, 14(4), 569–573. https://doi.org/10.1016/j.dsx.2020.05.008
- Li, L., Zhang, Q., Wang, X., Zhang, J., Wang, T., Gao, T. L., Duan, W., Tsoi, K. K. F., & Wang, F. Y. (2020). Characterizing the Propagation of Situational Information in Social Media during COVID-19 Epidemic: A Case Study on Weibo. IEEE Transactions on Computational Social Systems, 7(2), 556–562. https://doi.org/10.1109/TCSS.2020.2980007
- 29. Loehlin, J. C. (1998). Latent variable models: An introduction to factor, path, and structural analysis. Lawrence Erlbaum Associates Publishers. http://psycnet.apa.org/record/1998-07069-000
- Montenovo, L., Jiang, X., Rojas, F. L., Schmutte, I., Simon, K., Weinberg, B., & Wing, C. (2020).Determinants of Disparities in Covid-19 Job Losses.In National Bureau of Economic Research (No. 27132). https://doi.org/10.3386/w27132
- 31. Noor, N. M. (2003). Work- and family-related variables, work-family conflict and women's well-being: Some observations. Community, Work and Family, 6(3), 297–319. https://doi.org/10.1080/1366880032000143474
- 32. Raja, R., &Nagasubramani, P. C. (2018).Impact of modern technology in education.Journal of Applied and Advanced Research, 3(S1), 33. https://doi.org/10.21839/jaar.2018.v3is1.165
- 33. Robertson, K. (2000). Work transformation: Integrating people, space and technology. Facilities, 18, 376–382. https://doi.org/10.1108/02632770010349600
- 34. Satardien, M., Jano, R., &Mahembe, B. (2019). The relationship between perceived organisational support, organisational commitment and turnover intention among employees in a selected organisation in the aviation industry. South African Journal of Childhood Education, 17. https://doi.org/10.4102/sajhrm.v17i0.1123
- Shah, K., Kamrai, D., Mekala, H., Mann, B., Desai, K., & Patel, R. S. (2020). Focus on Mental Health During the Coronavirus (COVID-19) Pandemic: Applying Learnings from the Past Outbreaks. Cureus, 12(3). https://doi.org/10.7759/cureus.7405
- 36. Velavan, T. P., & Meyer, C. G. (2020). The COVID-19 epidemic. Tropical Medicine and International Health, 25(3), 278–280. https://doi.org/10.1111/tmi.13383
- Wang, Z., & Kim, H. G. (2017). Can Social Media Marketing Improve Customer Relationship Capabilities and Firm Performance? Dynamic Capability Perspective. Journal of Interactive Marketing, 39, 15–26. https://doi.org/10.1016/j.intmar.2017.02.004
- 38. WHO. (2020). Infection prevention and control during health care when novel coronavirus (nCoV) infection is suspected. https://www.who.int/publications/i/item/infection-prevention-and-control-during-health-care-when-novel-coronavirus-(ncov)-infection-is-suspected-20200125