Migration Letters

Volume: 20, No: S8(2023), pp. 384-400

ISSN: 1741-8984 (Print) ISSN: 1741-8992 (Online)
www.migrationletters.com

Unveiling the Indirect Effect of E-Leadership Toward Remote Work Productivity in the Governmental Institution

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Abstract

Public and private organizations have been forced by the COVID-19 pandemic to apply remote work arrangements as the best option for inhibiting the spread of the Coronavirus. Kementerian Kesehatan Republik Indonesia (Indonesian Ministry of Health) is the spearheading institution for resolving COVID-19 health issues at nationwide. The government institution was expected to have higher productivity by working from home rather than working from the office. E-leadership of supervisors in governmental institutions became a strategic issue. This study tries to recognize the impact of e-leadership on work productivity. A survey-based quantitative study was applied to examine three developed hypotheses. It is about 113 employees of Kementerian Kesehatan Republik Indonesia have been involved as respondents. Perceptual responses from the respondents were structured by using the Structural Equation Modeling and then were computed with SmartPLS version 4.0. The results reveal e-leadership ability of the supervisor has an indirect effect on work productivity. For maintaining work productivity, e-leadership should be directed to improve internet skills of governmental institution. For further research, this study recommends to examine effect of digital resources, digital collaboration, perceived organizational support, and learning agility.

Keywords: *e-leadership, work productivity, internet skills.*

INTRODUCTION

COVID-19 created a negative impact on Indonesia in all aspects of life: (a) health aspect -- decreasing physical health conditions, increasing death rate as well as a rapid decrease in mental health; (b) education aspect – the declining quality of learning because the education forced to be delivered online in all education level, (c) economy aspect – declining profit, loss or even bankruptcy in all sectors, industries, and supply chain; manufacturer, distributor to retailer (d) political aspect – causing the restriction or reschedule of political event and agenda; and (e) security aspect – the increasing criminality rate which can threat national security (Pakpahan, 2020; Samudro & Madjid, 2020; Ssenyonga, 2021; Suryahadi et al., 2020; Valerisha & Putra, 2020). For over two years -- from March 2020 to March 2022 – Indonesia has undergone three waves of the highest COVID-19 cases. After the 3rd wave, COVID-19 has sloped in casualties, either affected or deaths, leading to the increasing number of hospital vacant beds in April 2022 (Satgas Covid-19, 2022). Based on this data, the government stipulates the pandemic status has transformed into endemic (Adisusianto, 2021; Fauzan & Junara, 2022)

During COVID-19 pandemic, work productivity of public and private organizations was

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an interesting issues to be elaborated. Although many studies have proved that work-from-home policy have positive impact for individual and organization (Allen et al., 2015; Kasemsukprakarn & Dowpiset, 2020; Onyemaechi et al., 2018; Shi et al., 2020), unfortunately work productivity especially in work-from-home arrangement has been questioned and doubted by many organizations both in public and private organizations. Six surveys conducted in four Scandinavian companies concluded that perceived productivity had not changed significantly (Smite et al., 2022). Many managers were worried that their employees were not able to work effectively from home, or did not have the motivation to do so as well as they also felt lost control and could not correct mistakes made by employees (Smite et al., 2022).

Another empirical study conducted at four manufacturing companies in Japan obtained the following findings: (a) employees who worked from home experienced a decrease in productivity more than those who did not; (b) poor work from home arrangements and communication difficulties are the main reasons for decreasing productivity; (c) the mental health of workers who work from home is better than workers who cannot work from home (Kitagawa et al., 2021).

Meanwhile, several previous studies have obtained results that support work from home. A previous study suggests that the transition to a more flexible workplace and working hours for employees could have positive consequences for family and professional life, stakeholders, public health, and the environment (Weitzer et al., 2021). Another study also found that work-from-home arrangements have increased life satisfaction, and then life satisfaction increased work productivity (Kazekami, 2020).

Employees who claim to be more productive explained that they have more freedom, flexibility, and focus at work. Meanwhile, employees who experience a decrease in productivity complain of difficulties with teamwork and remote collaboration, as well as emotional problems, distractions, and inadequate work facilities at home (Smite et al., 2022). Compared to working from offices, employees who conducting work from home arrangements have lower levels of satisfaction with lighting quality, spatial availability and information technology. However, they had higher satisfaction for the thermal, air quality, and sound environment at home. Although it is easier to concentrate on work and recharge at home, the workers experience difficulties related to business communication from home (Umishio et al., 2022).

Some research also explains many factors that could be a predictor of work productivity, one of them is the working duration. Empirical study in the past has concluded that work-from-home for about 18 hours a week has positive impact and significant level towards productivity compared if the work is done at office (Kazekami, 2018). The less communication time spent with coworker, trust and support from supervisor, adjustment of working environment as well as the ability to take care family while working are also factors that has effect and can be used as predictor to work productivity. (Nakrošienė et al., 2019).

This article uses organizational behavior theory (Borkowski & Meese, 2021; Judge & Robbins, 2017; Wagner & Hollenbeck, 2020) as the main theory in analyzing work productivity as behavior in organization context. As a behavior in organizational context, the work productivity is influenced by internal factors which come from the employee itself as well as external factors which derive from the surrounding environment such as group or organization. Internal factors could be from physical health and fitness, emotional intelligence, psycho-motoric skills, mental attitude, and any other factors that sourced from the employee itself. Meanwhile, external factors in group scope can be derived from interpersonal communication, teamwork, leadership of superior, personal-positional power, political practice in workplace, or other factors which sourced from individuals who the employee interacts with intensively in daily work. External factors in organization scope come from organizational culture, organizational structure,

operational procedure, working system, organization support, appraisal system, people development system and any other factors that is under organization leader's control. (Borkowski & Meese, 2021; Judge & Robbins, 2017; Wagner III & Hollenbeck, 2014).

This research focused only on two factors, such as (1) internet skills as the representation of internal factor and e-leadership as representation of external factor which has impact on work productivity. Since employees using digital technology intensively during work from home, this study had an interest on internet skills s of employee as well as internet-based leadership of his or her leaders in the unit. The internet skills s will act as internal factor, while e-leadership will be treated as external factor. This research question whether internet skills s of employees and e-leadership of supervisors has positive and significant impact on work productivity during work-from-home policy implementation.

LITERATURE REVIEW

Remote Work Productivity

Work from home (WFH) as a work assignment has been introduced since 1990 by using different terms, such as telecommuting (Hylmö & Buzzanell, 2002), teleworking (Contreras et al., 2020), remote working (Avlani & Charalampous, 2021), home office (Davis et al., 2020), or virtual work (Blanchard, 2021). WFH defined as way of flexible working arrangement -- either temporary or permanent - which allow people to work on any places other rather than traditional working place such as office. (Maruyama et al., 2009). In the context of COVID-19 especially in Indonesia, WFH policy implemented temporarily. WFH or remote work is an alternative working arrangement which give chances employee to hinder from infectious diseases if they work with the same employee who is already infected as well as repairing social inclusion that allow individual with specialty need to still contribute as part of workforce. (Bosua et al., 2017).

Several research show remote increase productivity, creating work-life balance, reducing traffic, give spatial and temporal flexibility, reducing stress level and infrastructure costs. (Maruyama & Tietze, 2012; Troup & Rose, 2012). The result of research conducted on 11 oil and gas companies presents that remote work has positive impact on productivity, job autonomy, work-family balance, and occupational level (Khan et al., 2018). Furthermore, another study explains remote work has a positive but weak impact on the better quality of work. This indicates that there other factors that has impact on work quality other than remote work (Onyemaechi et al., 2018).

Meanwhile, productivity as a concept explain the relation between output produced by system and input needed. (Sink, 1985). Operational productivity terminology is used to visualize any production input such as facility, work force, inventory, and tools which affect the production result as output. Operational Manager controls all input and process to maximize output (Del Gatto et al., 2011). As comparison ratio between the result work output and resources used as input, the measurement of work productivity can be calculated as total factor productivity – where all resources used in producing output is identified and calculated as denominator or dividing factor or partial productivity – which only one or some most dominant resources used as denominator (Narpati et al., 2021).

In terms of resource usage as input of productivity, working arrangement at office is quite much different than work from home. When working-at-office, all resources have been supplied and paid by company such as working room, office supplies, working tools and materials, working facility, electricity, water, and internet access. While working from home arrangement, employee not realized that some of resources are provided by the employee themselves. More often than not, since an employee has flexible working hours, the work uses the employee's personal time to complete the work. Since the way of working in Indonesia Ministry of Health different than people working in factory or

manufacture, the work productivity terminology relatively different. Since the characteristic of work in Indonesia Health Ministry more on administrative tasks or services, the productivity measurement need adjustment. Not all the work output can be measured quantitatively or calculated precisely, but also qualitative parameter in the form of positive feeling or mood for the work has been done.

In this research, work productivity measured by respondent's report or usually called as perceived productivity or self-reported productivity in the form of employees' response of how they work more productive during Remote work compared when they work from office before pandemic happened. Thus, the remote productivity can be measured both qualitatively and quantitatively. Quantitative parameters compare whether employees can accomplish more tasks, faster, cheaper, more fluent, and better quality during WFH compared to when they work at office. Qualitatively, the research explains whether government officers during WFH assignment can work more independently, more flexible, happier, more focused, and more creative rather than working at office before COVID-19 pandemic.

Internet Skills of Employee as an Internal Factor

Internet skills s conceptually has similarity with different terminologies: digital skills (van Laar et al., 2017), digital competence (Hatlevik et al., 2015), digital literacy (Siddiq et al., 2017), digital mastery (Saputra et al., 2021), digital intelligence (Rivoltella, 2008) or digital master (Biahmou et al., 2016). Researchers in the past defined Internet Skills as the ability to make use digital technology to develop economy and fulfill individual needs (Van Dijk & Van Deursen, 2014) Other research interpret internet skills as individual capability in using digital technology to renew the way of interaction with customer, acquire new customer and running business operation processes (Hargittai et al., 2019). There is also researcher defining Digital Mastery as behavior, awareness, individual skills s using digital technology to access, identify, analyze and integrate digital resources to create new way of communication with other parties in terms of creating useful social behavior (Saputra et al., 2021). Based on those definitions, this research defining internet skills as individual awareness, attitude, and skills in using digital technology in the purpose of coordinating communication, self-development, with main activity to increase organization management.

Some previous empirical studies have proven that there is a strong relation between technology related skills s mastered by employees towards the work productivity outcome. Previous empirical study (Delgado-Gallegos et al., 2021) analyze the impact of internet adoption to work force productivity on micro and small manufacturer company in Peru between 2011-2012 period. The research has found that internet adoption: (a) improve company productivity work force; (b) reallocate work from temporary administrative employee and unpaid employee, expanding work of permanent production employee; (c) leading to formality of work relation, implementing new organization practice and improvement in training steps. On the other hand, another empirical study (Taştan & Gönel, 2020) study about impact of Information Technology of Turkey's company productivities using longitudinal aggregated data between 2007-2014 confirmed the existence of positive relation between company productivity with the use of Information Technology in service sector compared to manufacturing sector. Based on those two empirical studies, this article develops the following hypothesis:

H_1: Internet skills has positive impacts on remote work productivity.

E-leadership of Supervisor as External Factor

Disruption of digital technology causing the digital mastery and technology-based leadership capabilities on the same importance level in determining organization competitiveness. (Westerman et al., 2014) Some literatures defined E-leadership as key skills that must be owned by manager to execute digital transformation. Through E-

leadership, organization leader develop clear and meaningful vision to execute strategies that is related to digitalization process (Zeike et al., 2019). Just like direct leadership, E-leadership is an important and particular skills s in organization management which can make the organization function become more effective (Elyousfi et al., 2021). An effective e-leader should be able to communicate clearly, providing sufficient social interaction and showing technological knowledge through and in a virtual environment.

In the long run, an effective e-leadership could develop responsible team, determine effective and accountable process, inspire changes, and create grow trust virtually (Elyousfi et al., 2021). Therefore, e-leadership is a set of social impact processes mediated by technology to change attitude, feeling, thinking, behavior, and performance in an organization. There are six competencies of effective e-leadership: e-communication, e-social, e-change, e-team, e-tech savvy, and e-trustworthiness (Roman et al., 2019).

Some empirical research in the past has proved that there is strong relation between leadership qualities of leaders to work productivity produced. An empirical study from Nigeria (Okechuku & Nebo, 2020) which aims to see correlation between E-leadership to team productivity in e-commerce business in Nigeria showing that there is positive and significant impact of modern Information Technology adoption to team productivity. Not only that, but there is also a positive and significant impact from virtual communication skills to team productivity. Another empirical study (Saputra & Saputra, 2020) which involves 280 employees of PT Angkasa Pura I as State Owned Enterprise which manage some airports in Indonesia concludes that digital culture and digital leadership has positif and significant impact to digital competence of employees. Based on the two studies, this article would like to test the following hypothesis:

H2: e-leadership has positive impact on remote work productivity

Some other empirical research has also shown that there is a strong relation between leadership of leaders and skills development of employees. A research on 787 teachers from 65 elementary schools describe that there is positive and direct influence from distributive leadership toward collaboration skills of teachers(Amels et al., 2020). Another research on 96 nurses working on 5 nursing homes in Korea also conclude that self-leadership and job commitment has positive and significant influence to job competence (Kim, 2020). Based on those findings, this article tries to conduct test on the following hypothesis:

H3: e-leadership has positive influence on internet skills.

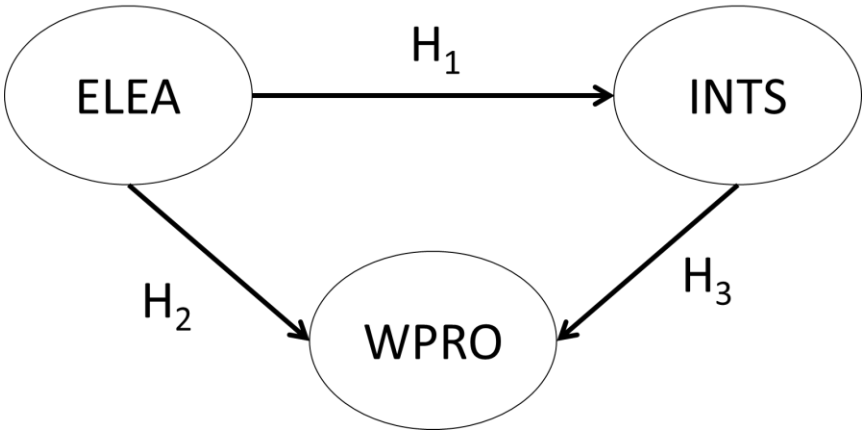

Figure 1 Research Model

MATERIALS AND METHODS

This article is developed using quantitative and cross-sectional methods which only use survey as the means of data collection. The survey is conducted using set of questions that must be filled by respondents in rational, ordinal, and internal scale for personal data dan interval scale for the three observed variables The research is carried out online utilizing social media to spread the questionnaire to the employees working of Direktorat Pencegahan dan Penanggulangan Penyakit Menular (P2PM) Kementerian Kesehatan Republik Indonesia. The office is located at, Jakarta Indonesia. After getting formal approval from Director of P2PM, dated 23rd May 2022, data collection was conducted from June 8th, 2022 until June 25th, 2022. Perceptual responses have been collected from 113 from 130 employees of Direktorat P2PM; which are 93 persons are permanent employees and 20 persons are honorary employees.

In measuring the work productivity, there are 10 indicators involved which are grouped into 2 dimensions: quantitative outcome and qualitative outcome. Meanwhile, e-Leadership measurement is adopted from previous research (Roman et al., 2019) which use 18 indicators originating from 6 dimensions: e-communication, e-social, e-team, e-change, e-technology savvy, and e-trustworthiness In measuring internet skill, this research use an instrument developed by previous research (van Deursen et al., 2016) which consists of 19 indicators divided into five dimensions, such as: internet operation, internet social, internet navigation, internet creation, and internet mobility. This research uses descriptive and casual analysis by applying Structural Equation Modelling with first order construct type for all three variables. With the favor of SmartPLS version 3.3. 9 which has two steps calculation: PLS algorithm and bootstrapping. The result of PLS algorithm is used to analyze the validity and reliability. Meanwhile, the bootstrapping calculation is used as the basis of hypotheses testing.

RESULTS AND DISCUSSIONS

From 130 employees of Direktorat P2PM, 113 has participated as the respondents. The majority of respondent hold status as permanent employee (82%), while the rest (18%) as temporary employee. Most of respondents are female (59%) while the males covered 41% of respondent. Based on respondent's last education background, the majority (44%) are holding bachelor degree, while master's degree background occupied 40% of respondents. Only 16% of respondents have either high schools, diploma, or doctoral degree. Based on age, most of respondents aged 30 years and above (43%) and 40 years above constitute 30% of respondents. Based on years of working, most respondents (65%) have spent at least 5 years. The digital support needed by is internet quota (62%) and laptop or computer (29%).

Validity and Reliability Analysis

To ensure acquired data is reliable and valid, the validity and reliability analysis has been conducted on all indicators and variables used. In validity analysis of indicator, outer loading (OL) score is used. A valid indicator has a score of more than 0.6. In validity analysis of variables, average variance extracted (AVE) score is used. A valid variable would have AVE's score more than 0.5. For variables, validity discriminant analysis was also applied using square root of AVE. In the purpose of reliability analysis, Cronbach's alpha (CA) or composite reliability (CR) score is used as parameter. A reliable variable must have CA or CR score bigger than 0.70.

Table 1 shows the result of the validity and reliability analysis of indicators and variables of remote work productivity, e-leadership, and Internet skills. All variables have an AVE score of more than 0.50. It indicates that all variables are valid. The scores of CA or CR

of all variables are more than 0.70. It means that all variables are reliable.

Table 1 Validity and Reliability Analysis

Variable	AVE	CA	CR
Remote Work Productivity	0.52	0.88	0.91
e-Leadership	0.63	0.96	0.97
Internet Skills	0.52	0.94	0.94

Table 2 shows the results of discriminant validity analysis. The diagonally bold scores are squared root of AVE. Those scores are higher than 0.70 and become the highest score in its column. It means that all variables are discriminant valid. Based on validity and reliability analysis. All variables - remote work productivity, e-leadership, and internet skills are valid as well as reliable.

Table 2 Discriminant Validity Analysis

VARIABLE		[1]	[2]	[3]
[1]	e-Leadership (ELEA)	0.79		
[2]	Internet Skill (INTS)	0.39	0.72	
[3]	Remote Work Productivity (WPRO)	0.45	0.49	0.72

Descriptive Analysis and Research Model

The average value (mean) and standard deviation (STDEV) were calculated for all the perceptual responses obtained. Mean values ranging from 1.00 to 1.80 are indicated as very low; mean values ranging from 1.81 to 2.60 are indicated as low; the mean value range from 2.61 to 3.40 is indicated as medium; the mean value ranges from 3.41 to 4.20 is indicated as high; there is also an average value ranging from 4.21 to 5.00 which is indicated as very high.

Table 3 demonstrates that remote work productivity is medium, with an average of 3.37 and a standard deviation of 0.64. As for the quantitative outcomes, it is high (mean value 3.42; standard deviation 0.66). At the same time, qualitative outcomes are medium (mean value 3.31; standard deviation 0.76). For quantitative outcomes, respondents stated that they worked more efficiently and more during the implementation of remote work assignments. Medium for qualitative outcomes, respondents stated that they felt healthier and happier while doing remote work. It can be concluded that the perceived productivity of remote work by employees has increased for quantitative rather than qualitative outcomes. Table 3 explains that e-Leadership is high, with a mean of 3.44 and a standard deviation of 0.68. This is highly reflected in e-communication, e-team, e-change, e-technology and e-trust. Only e-social is indicated low (mean value 3.37; standard deviation 0.84).

In Table 3 the score of internet skills is indicated medium with an average of 3.33 and a standard deviation of 0.66. This is reflected in the ability that is also medium in the internet social and internet creation dimensions. Even though the employee's ability in terms of internet operations, internet navigation, and internet mobility is high, these three dimensions are not able to leverage internet skills as a whole to be high as well. Because of this, the internet skills of employees can be further improved by focusing on internet social aspects and internet content creation dimension. A skill in utilizing the internet to build social networks and develop interesting digital content to facilitate work in serving the wider community for the control and prevention of infectious diseases.

Table 3 Descriptive Analysis

VARIABLE / DIMENSION	AVERAGE	STDEV	RESULT
REMOTE WORK PRODUCTIVITY	3,37	0.64	Medium
Quantitative Outcomes	3,42	0.66	High
Qualitative Outcomes	3,31	0.76	Medium
E-LEADERSHIP	3,44	0.68	High
e-Communication	3,49	0.71	High
e-Social	3,37	0.84	Medium
e-Team	3,54	0.73	High
e-Change	3,29	0.92	High
e-Technological Savvy	3,48	0.67	High
e-Trustworthiness	3,5	0.77	High
INTERNET SKILLS	3,33	0.66	Medium
Internet Operation	3,77	0.76	High
Internet Navigation	3,71	0.74	High
Internet Social	3,1	0.99	Medium
Internet Creation	2,68	0.91	Medium
Internet Mobility	3,43	0.89	High

Causal Analysis on Research Model

Despite being used to carry out validity and reliability analysis, calculating the PLS Algorithm can also determine the effect of exogenous variables on endogenous variables. In Figure 2, it can be seen that remote work productivity (WPRO) as an exogenous variable is influenced by two endogenous variables, namely e-leadership (ELEA) and internet skills (INTS), simultaneously by 31.9 percent. This means that around 68.1 percent of the impact is still influenced by other factors that have not been discussed in this study. Meanwhile, internet skills (INTS) are influenced by 15.3% by e-leadership (ELEA). This means that around 84.3% of the impact is influenced by other factors that have not been discussed in this study.

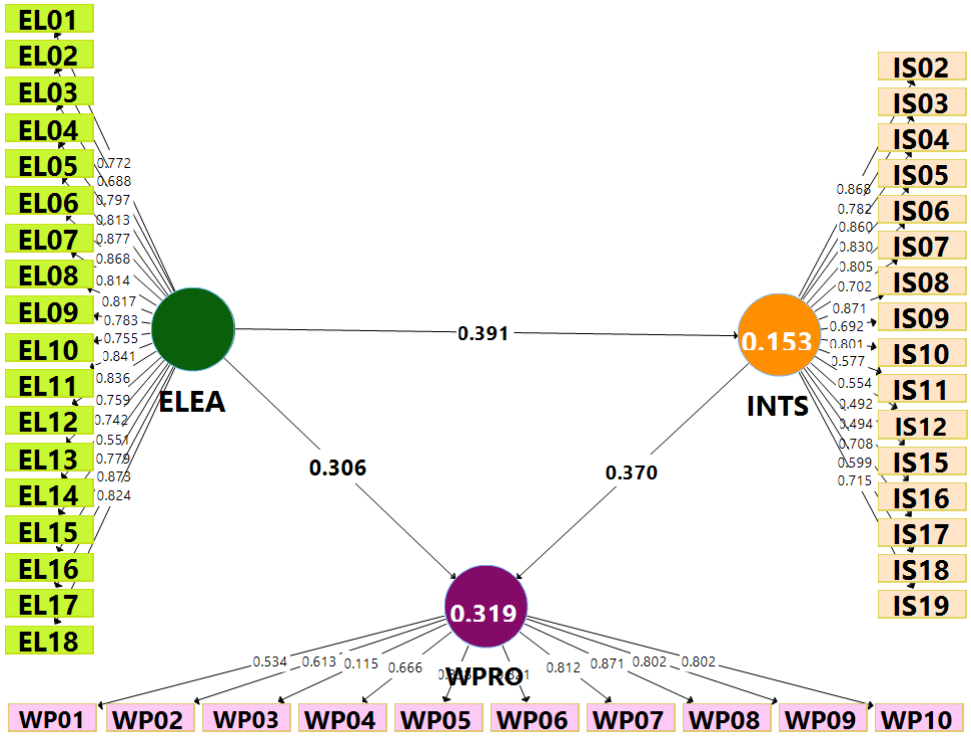

Figure 2 PLS Algorithm Analysis of Research Model

Bootstrapping calculations with 500 sub-samples give the results shown in Table 4 and Figure 3. A hypothesis is supported or accepted if it has a beta or path coefficient with a t-Statistics value higher than 1.96 or a p-value smaller than 0.05. Of the three hypotheses developed to be tested, only one hypothesis was rejected, namely hypothesis H_2. Because the beta value = 0.31 but has a t-Statistics of 1.52 or less than 1.96. Likewise, the p-value is 0.130 greater than 0.05. At the same time, the hypotheses H_1 and H_3 are accepted because they have t-Statistics higher than 1.96, namely 2.38 for the H_1 hypothesis and 3.05 for H_3.

Table 4 Bootstrapping Analysis for Hypothesis Tests

Hypotheses		Beta	t-Statistics	p-Values	Results
H_1:	Internet Skills ==> Remote Work Productivity	0.37	2,38	0.018	Accepted
H_2:	e-Leadership ==> Remote Work Productivity	0.31	1,52	0.130	Rejected
H_3:	e-Leadership ==> Internet Skill	0.39	3,05	0.002	Accepted

In Figure 3 the black line represents that the hypothesis is supported or accepted, while the red line indicates the hypothesis is rejected or not supported. WPRO was positively and significantly influenced by INTS but positively but not significantly affected by ELEA. Meanwhile ELEA has a positive and significant effect on INTS. ELEA has an indirect effect on WPRO. Thus, INTS plays a role as a mediator in the relationship between ELEA and WPRO. In order for ELEA to have a positive and significant impact on WPRO must be able to develop INTS. By developing or increasing INTS for employees, it will ultimately have a positive impact on increasing employee productivity while carrying out remote work assignment.

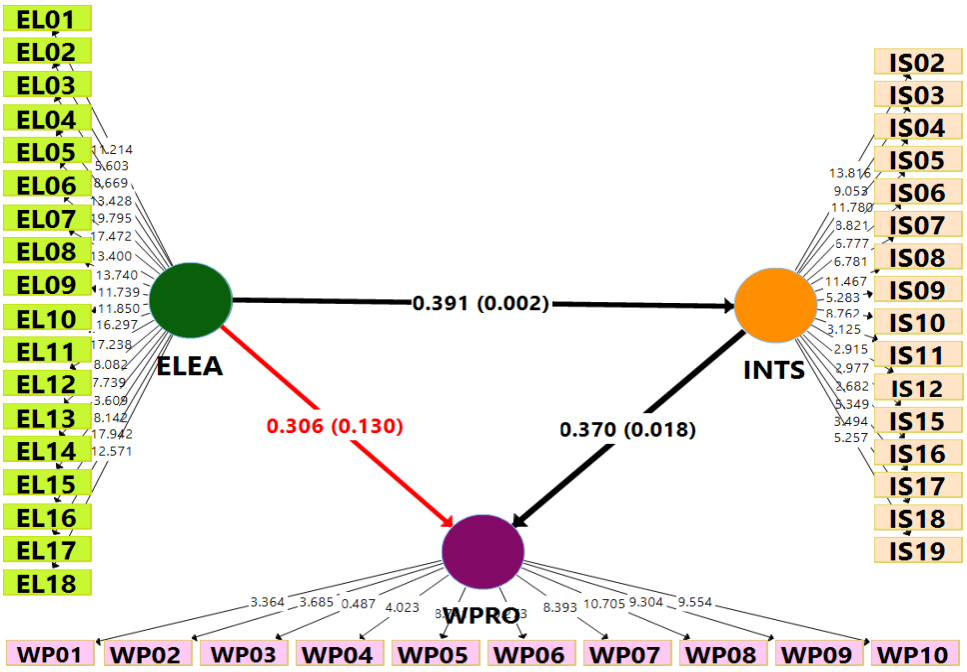

Figure 3 Bootstrapping Analysis of Research Model

The P2PM Directorate of the Ministry of Health of the Republic of Indonesia has always been the government's spearhead in tackling the spread of COVID-19 in Indonesia in dire need of adequate productivity while working from home. Because the challenge of working during the outbreak of COVID-19 is peak work experience that goes far beyond the conditions of working from an office before the pandemic broke out. Because it is important to ensure work productivity during work from home is at least the same as work productivity from the office.

Based on the results of statistical analysis, the employees claims remote work productivity at medium level. This means that they perceive that remote work productivity is the same as the productivity of working at the office. However, when broken down further, it turns out that remote work productivity is perceived better during work from home. They were working more efficiently and feel healthier and happier at work during remote work assignment.

As for their technical skills in utilizing internet, employees perceive that their internet skills are medium. Even though they are high skills in terms of internet operations, internet navigation, and digital mobility; but in terms of internet social and creation they consider medium. Therefore, for establishing remote work productivity; the development of internet skills is emphasized or prioritized for the ability to use the internet to socialize as well as to be more creative in developing relevant digital content for accommodating work demands in serving the wider community.

Meanwhile, the ability of the superiors to utilize digital technology for leading the team is currently being perceived quite highly. The e-leadership capability of the supervisor is high in five dimensions - e-communication, e-team, e-change, e-technology savvy, and e-trustworthiness. Only the e-social dimension is perceived as still at the medium level. It is an ability of superiors to give a personal touch and build togetherness with employees virtually.

From the results of the hypothesis testing, empirical evidence was obtained that the remote work productivity of employees, positively, and significantly affected by the internet skills they currently had. However, e-leadership from work unit leaders has an indirect impact on work productivity. Internet skills play a role as a mediator. The e-

leadership ability of the work unit leader must have a direct, positive, and significant impact on the internet skills of employees first, then the internet skills have a direct, positive, and significant impact on work productivity.

CONCLUSIONS

Based on the previous discussion, there are several things that can be drawn from this research:

(1) Remote work productivity of employees is generally perceived as medium or the same as the productivity of working from the office before the COVID-19 pandemic. However, for quantitative outcomes, employees perceive that remote work makes them work more efficiently and at the same time work more. Meanwhile, for qualitative outcomes, employees perceive that they work are happier or satisfied with their work.

(2) In general, the internet skills of employees are medium or adequate. In fact, some dimensions of skills such as internet operations, internet navigation, and internet mobility are perceived as high. The internet social and creation dimension are prioritized for improvement in the future because they are still perceived as medium.

(3) Employees of Indonesian governmental institution also perceive that the e-leadership implemented by supervisor is perceived as high. Especially in the dimensions of e-communication, e-teams, e-change, e-technology savvy, and e-trustworthiness. What needs to be improved from this analysis is internet social, namely how the supervisor gives a personal touch and develops social intimacy with team members virtually.

(4) Remote work productivity is directly, positively, and significantly affected by the internet skills of employees as well as influenced indirectly but positively and significantly by e-leadership of supervisors.

(4) Supervisors as a leader and manager simultaneously can direct the already high e-Leadership to have a significant positive influence on the development of internet skills for employees of the Indonesian governmental institution.

(5) Internet skills are a mediator of the influence of e-Leadership on work productivity.

(6) E-leadership has a positive and significant impact on internet skills, especially in terms of digital operations, digital social, and digital mobility. Mediumkan e-leadership does not have a significant impact on digital navigation and digital mobility.

(7) Internet skills have a positive and significant effect on both aspects of work productivity both in terms of quantitative and qualitative achievements.

Because the results of statistical analysis obtained an understanding that the effect of e-leadership and internet skills was only 31.9%. There are still other factors that have a cumulative impact of 68.1% but have not been discussed in this study. Therefore, for future research, it is suggested to examine other factors such as: (a) availability of digital resources - availability of digital resources such as internet access, stability of data access, dedicated computers for working at home; (b) digital collaboration - the ability of employees to collaborate digitally in completing work; (c) perceived organizational support - employees perceive that the organization provides adequate support; (d) self-directed behavior – the ability of employees to manage themselves to work independently at home; and (e) learning agility – the agility of employees in learning new things or overcoming challenges both flexibly and quickly

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