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Determinants of Perceived Productivity in Teleworking among Malaysian Employees

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Abstract

This study was conducted to examine the antecedents of perceived productivity in teleworking among Malaysian employees. There are five independent variables, which is IT infrastructure, work flexibility, attitudes toward teleworking, job satisfaction and organizational commitment. Causal research, also known as hypothesis testing method, was used for this study to identify the effect of the independent variables on the dependent variable. The researcher used purposive judgmental sampling to collect data from respondents, in which survey questionnaires were distributed among Malaysian employees that work from home. Statistical Package for Social Science (SPSS) software was used to perform descriptive, reliability and regression analysis on all the data collected from 141 respondents. The results from the analysis came out positive as 3 of the independent variables were found significant to the dependent variable, except for job satisfaction and attitude towards teleworking. This study provides understanding about the management of teleworking in organisations by highlighting the antecedents that are vital for teleworkers' perceived productivity.

Keywords: Perceived Productivity, IT Infrastructure, Work Flexibility, Job Satisfaction, Attitude Towards Teleworking, Organizational Commitment

Introduction

Regardless of the benefits of implementing teleworking towards both employers and employees, the actual adoption of it is moving slowly than expected (Vilhelmson & Thulin, 2016). The reason behind this delay is because of the economic crisis lately (Isabel & Tavares, 2016). However, due to the spread of the virus covid-19, telework has suddenly experienced a rebound, because of the movement restriction orders or lockdown implemented by most governments (Belzunegui-Eraso & Erro-Garcés, 2020). Alongside the implementation of MCO by the government, organisations must restructure their cost structures, business strategies and work procedures, thus some companies already decided to implement Work from Home (WFH) permanently, even after the MCO (Goh, 2020). Datuk Seri Dr Zaini Ujang, the Environment Ministry secretary-general mentioned that most all employees nowadays have mobile devices that they can use to complete their work (Teoh, 2020). The transition from the normal office work arrangement to WFH might be smoother than others, especially if

the employees are highly experienced in remote working practices and already equipped with technologies needed even before MCO (New Straits Times, 2020d). The coronavirus disease 2019 (Covid-19) outbreak pandemic has created a new set of norms worldwide which initially has caused panic and chaos to all nations (Majid, 2020). This outbreak was brought by Chinese China, came into Malaysia through Singapore in early January 2020 then later local spread due to massive gatherings took place (Hassan, 2020).

Thus, WFH has several advantages during this crisis, where workers can continue their work while taking care of their health and to prevent complete shutdown of economic activities and the loss of associated jobs (Tumin, 2020). A worker's satisfaction with the working environment and their perceived productivity refers to the extent to which the workers evaluate their working environment to support their productivity (Been, 2015). Relationship or interactions between employees and employer have strong positive links with the teleworkers' perception on their productivity and level of job satisfaction (Been, 2015). Telework refers to employees working outside of the employer's office areas with the support of adequate ICTs, that could happen from various locations such as home and client offices (Belzunegui-Eraso & Erro-Garcés, 2020). Telework is defined as performing work from different locations that allow employees to access their work activities using information and communication technologies (Nakrošienė et al., 2019). Thus, this research is looking into the factors affecting perceived productivity in teleworking among Malaysian Employees.

Literature Review

Perceived Productivity in teleworking

Productivity is the efficiency of workers to convert input into output (Tsvetkova et al., 2019). An improvement in perceived productivity means that people feel that their works are more efficient and runs smoothly with a higher quality outcome than before (Senaatti, 2020). A study found a vague relationship between an individual's perceived productivity and his or her job satisfaction or affective commitment (Castelle, 2017). Organizations must generate new strategies that reflect the productivity of their employees (Parada, 2018). More studies in the past years have confirmed that teleworking affects both the employees and the companies in negative consequences. Some examples of the negative effects on the workers are limited social interaction and isolation due to working from home away from their colleagues, which can lower the productivity of the worker and even damage their health (Belzunegui-Eraso & Erro-Garcés, 2020). Past research also discovered that employees find it difficult to organize their working time and face problems related to confidential information as they are not working in the company premises (Montagut et al., 2017). In addition, more studies found that employees that telework outside the usual working hours are more pressed for time than other groups of employees that does not engage in telework, and women are pressed for time more than men does (Thulin et al., 2019). These consequences have negative effects on the employees and would be more likely to lower their productivity if they continue to work from home. However, there is also a lot of past research that finds benefits in teleworking to both employers and employees. Thus, the main purpose of this research is to study whether teleworking lowers the productivity of the employees or enhances the outcome of teleworking to the employees in Malaysia, especially during this Covid-19 outbreak.

IT Infrastructure

The basic definition of Information technology (IT) is that it is the application of technology that business and organisations use to solve their problems on a broad scale (Styler, 2019). IT is the use of any computers, storage, networking and other physical devices, and processes to create, process, store secure and exchange all forms of electronic data (Rouse, 2020). IT infrastructure represents the composite hardware, software, network resources and services needed to operate and manage an organization IT environment (Techopedia, 2020). IT can be considered as the key growth area in the highly competitive business environment in this century, which requires the usage of advanced IT tools to improve the efficiency, cost effectiveness, and to produce high quality products and services (Alex, 2015). IT has become an important role in every organisations, from multi-national to small business as it can be the communication channel between employees, suppliers and customers, inventory management systems, data management systems, management information systems, customer relationship management and more (MacKechnie, 2020).

Work Flexibility

Work flexibility means allowing employees to have the opportunity to make their own choices on when, where, and how to perform their work-related projects and tasks (Al-masri, 2020). Workplace flexibility refers to the willingness and ability of employees to adapt to change, particularly on how and when to get the work done (Doyle, 2020). Flexible work schedule allows employees to work hours different than the normal working hours in other companies (Heathfield, 2020b). Some benefits of job flexibility are the employees could get more time for personal needs and demands, less commuting time, reduced absenteeism, and less burnout (Parris, 2020). Previous studies mentioned that to gain maximum benefit on organizational performances in implementing work flexibility on an ad-hoc basis, managers should limit the amount of flexibility allowed and ask employees to make formalised arrangements in advance the days and hours they would work (Clarke, 2017).

Job Satisfaction

Job satisfaction refers to the level of contentment that employees feel after completing their job and it goes beyond their daily duties, to cover the satisfaction of their team members, managers, and the organizational policies, that could bring impact to the employees' personal lives (Basumallick, 2020). Employees' job satisfaction is one of the key goals of all Human Resource (HR) personnel, as a satisfied employee is not just an employee, but also a representative of the brand itself, internally and externally (Bathena, 2020). According to the Society for Human Resource Management (SHRM), in their Employee Job Satisfaction and Engagement Report mentioned that the number of employees who say they are satisfied with their current job increased rapidly from 81% 2013 to 88% in 2016 (Villanova University, 2020). Mentioned in a study by SHRM titled the Employee Job Satisfaction and Engagement Survey, that the top contributors to employee job satisfaction is respectful treatment of employees, combined compensation, benefits, and pay, job security, opportunities to use skills and abilities in their work, and the financial stability of the organization (Heathfield, 2020).

Research Model and Hypotheses

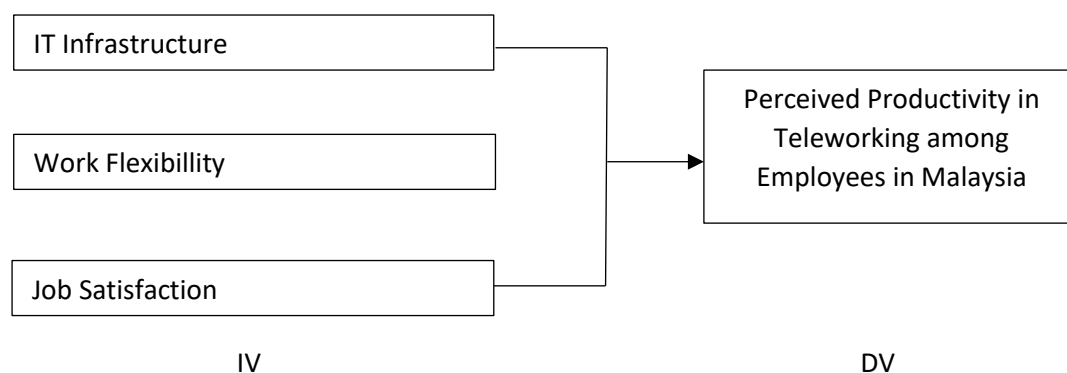


Figure 1: Theoretical Framework

Linking relationship between IT infrastructure and perceived teleworking productivity

A more advanced IT infrastructure is needed to have remote access to the employees' IT servers (Belzunegui-Eraso & Erro-Garcés, 2020). Most researchers believe that large-scale adoption of telecommuting is possible by having the necessary telecommunications infrastructure (Tamrat & Smith, 2017). Cybersecurity and Infrastructure Security Agency (CISA) encouraged organizations to strengthen security to prevent malicious cyber actors such as phishing attacks (Rockwell, 2020). To ensure the productivity of the employees when they telework, it is important that basic sets of technologies are accessible to them remotely (Median Outpost, 2020). Companies can use Virtual Private Network (VPN), a tool that connects remote users to the company's private internal network by using the internet to develop a system of monitoring the employees to ensure productivity to guarantee the appropriate amount of work is getting done from home (Pelletier, 2020). The workers' ability to be productive and efficient while WFH would be affected by the varies of speed and quality of internet connections (Magazine Malaysia, 2020). Thus, it can be postulated that:

H1: IT infrastructure is positively related to the perceived teleworking productivity.

Linking relationship between Work flexibility and perceived teleworking productivity

Allowing for flexible work arrangements on an on-going basis especially working parents is a satisfaction necessity for the employees and it may be able to offer benefits to both employers and employees such as increase in productivity, enhance work morale, and create a better work-life balance for workers (Society of Human Resource Management, 2020). Efficiencies present by flexible workers would benefit their team's productiveness as they are able to work at their peak hours of productivity that could lead to improved overall team effectiveness (Clarke, 2017). Past researchers found that workers who have control over their schedules and places of work are more satisfied with their outcomes and more productive in completing their tasks (Rhoads & Prager, 2020). Campbell (2015) suggests that business leaders used various ways for developing, implementing, and maintaining flexible work schedules and virtual work programs to increase employee productivity, job satisfaction, quality of life and more. Employees would become more productive while working from home as they have the right resources and a flexible schedule that allow them to work anywhere, without office distractions (New Straits Times, 2020). Thus, it can be postulated that:

H2: Work flexibility is positively related to perceived teleworking productivity.

Linking relationship between Employees' job satisfaction and perceived teleworking productivity

Job satisfaction was found to be an important role in an organisation for better performance, productivity and increasing turnover (Gawade, 2019). According to a study from 1996-2001, an increase in job satisfaction is directly related to a 6.6 percent increase in productivity per hour (Edwards, 2020). Teleworkers who are allowed to be more flexible in balancing their work and personal life are more satisfied in their job which may also increase their productivity in work (Schall, 2019). Stacy Sulliva, Google's chief culture officer mentioned to Forbes magazine that a fun work environment would produce more-engaged employees with greater job satisfaction, that could increase their productivity (Rifkin, 2020). A study at the University of Warwick stated that organisations that invested in employee support and satisfaction were more likely to be successful in producing happier workers, thus increasing their productivity (Rifkin, 2020). Thus, it can be postulated that:

H3: Employees' job satisfaction is positively related to perceived teleworking productivity.

Methodology

The researcher prepared a set of questionnaires to more than 190 respondents have answered the questionnaires but only 141 respondents met the criteria set by the researcher: individuals that is teleworking, with the position of executive levels and above from any industries in Malaysia. Sampling size of this study was determined by using the G*Power 3.1, downloaded from (Heinrich-Heine-Universität Düsseldorf, 2020). According to the test run by the researcher, the minimum number of respondents required is 138 respondents. All the dimensions are 0.795 for IT infrastructure, work flexibility with 0.762, job satisfaction with 0.715, which indicates that all are reliable. The R^2 for this study is 0.625 which indicates that 62.5% of the variation of dependent variable are an interpretation by the independent variables. In analyzing the research model, this study used the Statistical Package for the Social Sciences software (SPSS) to run the Multiple Regression analysis and test the hypotheses to discover the relationship between independent variables and dependent variable of this study.

According to the frequency analysis run by the researcher, a total of 80 out of 141 of the respondents are female with the percentage of 56.7 and most of the respondents are at the age of 25 years old and above, with the percentage of 44.7%. Additionally, more than half of the respondents, 91 of them are working in private sector with 64.5%, and are also single, with a total of 83 respondents (58.9%). Next, the education level of the respondents is considered, where most of them are degree holders with a total of 92 out of 141 respondents (65.2%) and majority of them had work only for 5 years and below (53.2%).

Table 1

Demographic Profile of Respondents

	Items	Frequency	Percentage (%)
Gender	Male	61	43.3
	Female	80	56.7
Age	56 years old and above	1	0.7
	41 – 55 years old	28	19.9
	26 – 40 years old	49	34.8
	25 years old and below	63	44.7
Organization Sector	Government Sector	50	35.5
	Private Sector	91	64.5
Working Position	Executive	86	61.0
	Manager	28	19.9
	General Manager	6	4.3
	Director	3	2.1
	Others	18	12.8
Marital Status	Single	83	58.9
	Married	55	39.0
	Divorced/Widowed	3	2.1
Education	SPM	6	4.3
	Diploma	30	21.3
	Degree	92	65.2
	Master	13	9.2
	PHD	-	-
Working Experience	5 years and below	75	53.2
	6 years – 10 years	29	20.6
	11 years – 20 years	24	17.0
	21 years – 30 years	12	8.5
	31 years and above	1	0.7

Table 2

Hypothesis Testing

Hyp	Relationship	Std Beta	Std Error	t-value	Sig	Decision
H1	IT infrastructure	0.306	0.100	3.065	0.003	Supported
H2	Work Flexibility	0.333	0.083	4.034	0.000	Supported
H3	Job Satisfaction	0.077	0.109	0.711	0.479	Not Supported

Referring to table 2, IT infrastructure, Work flexibility has a positive relationship with perceived teleworking productivity. Referring to the result above, hypothesis 1 and 2 are accepted because the variable has a p-value below the 5% significant level. Meanwhile as for job satisfaction is 0.479, which is higher than the 5% significant level. Thus, it was determined

that hypothesis 3 is rejected and job satisfaction does not have significant relationship with perceived teleworking productivity.

Discussion

Based on the results gained from this study, IT infrastructure has a significant influence on the perceived productivity of teleworkers. Every organisation that has the intention to implement teleworking among the employees should prepare sufficient IT infrastructure for their teleworkers, to ensure that they can perform their job efficiently, at the same time increase their productivity. In addition, the government should make initiative to ensure that organisations are able to implement teleworking by providing enough resources or funds, especially to the SMEs that need more capitals in equipping adequate IT infrastructure to their teleworkers.

Furthermore, work flexibility also has a significant influence on perceived teleworking productivity, thus organisations should implement their teleworking program in a more flexible environment, where the workers are allowed to control their own work, working hour and workplaces. Organisations can make up a system that enables the managers to monitor the progress of the teleworkers occasionally. They could set up a schedule for video conferencing occasionally, to catch up on each other and update their own progress in work and their mental and physical health, as working from home could affect their health.

Lastly, organizational commitment has a significant impact on perceived teleworking productivity. Organisations that implement teleworking need to ensure that their teleworkers have high organizational commitment to prevent an increase in employee turnover due to lack of organizational commitment between the teleworkers. The management needs to create a strong teamwork culture among the employees, be transparent and encourage open communication between teleworkers and give constructive feedback on their work. These approaches could be done by communicating more with the teleworkers and avoiding workplace isolation, where the workers feel like they do not have anyone to talk to.

Conclusion

To conclude, this research examines the determinants of perceived productivity among teleworkers in Malaysia. Every research question, research objectives and hypothesis were observed and concluded based on the findings from analysis. IT Infrastructure and Work Flexibility has a significant relationship with perceived productivity. Meanwhile only Job Satisfaction was found to have no significant relation. Furthermore, this study was conducted to assist the government and organisations to understand their teleworkers better. At the same time, provide all the essential needs and wants of their employees to ensure their productivity increases while working from home.

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